

An examination of the bio- psychological benefits of physical activity in parks and urban green spaces : a mixed-method approach

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PhD

2012

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Fig 2.1 (p.25)

Fig 2.2 (p.29)

Fig 4.1 (p.56)

Fig 5.4 (p.89)

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Abstract

As natural environments have been identified as places for mental restoration and social development there is the potential to address a number of bio-psychosocial health inequalities by encouraging urban park use. The current research explores the link between people and nature within the urban context of Liverpool across 3 phases of research.

The reconnaissance phase explored health inequalities, physical activity levels and park access in Liverpool. Analysis showed that Liverpool is one of the most socially and economically deprived areas within England, with less than 70% of the survey population not meeting recommended physical activity levels. Although Liverpool has an abundance of parks and urban green spaces, the high health inequalities and lack of physical activity correlation with environment features suggests residents might not access parks and urban green spaces for health benefits.

The exploratory study adopted a multi-method approach to investigate bio-psychosocial responses to urban city and park environments. Using repeated measures, 18 participants walked on a treadmill for 20 minutes whilst viewing and listening to either a Liverpool urban park or city centre scene. A two-way ANOVA was conducted to compare means between data collection time points within each condition for heart rate and blood pressure. Analysis for mean arterial pressure found a significant reduction for the park condition post physical activity [$F(2,18) 6.83, p=.02$] with the same effect on systolic blood pressure [$F(2, 18)=8.61, p=.00$] in comparison to the city scene. Semi-structured interviews conducted after testing found that cultural and social experiences influenced how participants interact with the urban environment. In particular, opportunities to access parks and natural environments during childhood was attributed to a lifespan connection. Participants reported psychological benefits of stress reduction and attention restoration and social benefits including providing a place for family and friend interaction in a park setting. Social barriers included fear from crime and harassment from teenagers. While the city was associated with traffic, congestion and noise that could evoke negative emotions, the history and diversity of Liverpool aroused pride and enjoyment that could also promote psychosocial benefits.

The intervention study adopted ethnographic principles to explore cultural and individual beliefs of a group of eleven teenagers engaged in a park based physical activity programme. Observations during the programme indicated that the practitioner's role and skill base was paramount to park and activity engagement. Changes to participants across the programme impacted negatively on group dynamics, with external pressures from family and friends contributing to low attendance rates, poor time keeping and low concentration during activities. The social intervention highlighted the need to fully engage participants in the planning process and provide an agreed structure and policy for behaviour. The research highlighted a number of organisational, cultural and social issues that need to be tackled before benefits from green spaces can be fully realised.

Overall research findings suggest that potential bio-psychosocial benefits of physical activity in parks and urban green spaces may be influenced by complex social issues surrounding values, culture and tradition. Further investigation into the interrelationships between neighbourhood residents, parks and urban green spaces, activities of users, and potential restorative effects could provide beneficial insights for policy makers and practitioners who would look to use these spaces for bio-psychosocial wellbeing.

Acknowledgements

I would like to thank Liverpool Active City for funding the research and social intervention. To all of the exploratory study participants, thank you for sharing your stories and making the trip down to LJMU (twice) for testing. Thank you to the teenagers and staff who were involved with the social intervention - although you regularly tested my nerves, on reflection my time with you taught me some valuable lessons.

Within the department there are many people who have contributed to my research journey. To all of the ACLASS and GOALS teams, I thank you for always making smile and providing spontaneous games for much needed time outs. Thanks to my LAC colleagues who supported me while trying to balance the PhD with work. A huge thank you George Savage! You are an absolute legend and without you I never would have survived the many equipment malfunctions that descended upon me at the most inopportune moments! A big thank you also goes to Katie for having to put up with me at work and home. Thank you for all of your encouragement and for giving me someone to watch naff American TV with. Desperate housewives will never be the same without you!

Thank you Gareth for providing me with the opportunity to undertake a PhD and challenging me along the way. Thank you to Becky for your guidance and to Mark for providing me with some thought provoking discussions and a different insight into society. My biggest thanks at LJMU are reserved for Dr Dave Richardson. I thank you for taking a chance on me and supporting me through some of the toughest times of my life. I know at times I have been a pain in the backside, but I will always be grateful for your guidance and support (we got there in the end!!)

To my family, thank you for your understanding. Thank you dad and Jill for always being at the end of a phone and supporting me throughout all of my studies (Dad, hopefully we can start having conversations that doesn't start with '*is it done yet?*'). I would like to thank the Liverpool Giblin and Goodwin contingency for always being there to support me 'up north'. Thank you Auntie Pat for providing me with so much support during my time in Liverpool - I don't know how you do it, but I hope I have the same energy as you when I'm your age. Thank you Uncle Chris for cooking the best Sunday roasts in the world! I would also like to acknowledge my grandma who has one of the best gardens in Liverpool! During some hard summer months your garden and romantic stories of the olden days provided me with the opportunity to escape from all my worries.

Thank you to my 'second' family for providing me with a place to stay and always being there for me over the years. Thank you to all of my friends back home and all of girls I have played netball with over the years for some much needed down time. To my two best friends Pauline and Trina, I thank you for listening to all of my moaning and on occasions providing me with a much needed shoulder to cry on. You are the two people I have turned to most during this journey and I can never thank you enough. I value our friendship more than anything and without your support (and the odd glass of vino) I never would have got this far. And you never know we still may end up like the golden girls...

Finally, I would like to dedicate this thesis to my late granddad, Robert Goodwin. I will always be grateful to you for teaching me long division and multiplication at a young age and for your wise words that it's not about where you start out in life, but where you end up. You were right and I thank you for making me want to strive for more.

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Chapter One:

Introduction

*'Man did not weave the web of life; he is merely a strand in it.
Whatever he does to the web, he does to himself.'*

Attributed to Chief Seattle, 1854

1.1. Introduction

In 1948 the World Health Organisation (WHO) defined health as '*a state of complete physical, psychological and social wellbeing and not simply the absence of disease or infirmity*' (p.100). Although this definition is still visible in the forefront of the WHO constitution, across developed countries there still remains disparity between the understanding of health determinants and the use of this knowledge to decrease health inequalities and improve bio-psychosocial wellbeing (WHO, 2003). Given that in England, the prevalence of physical activity at recommended levels is less than 40% of the population (SE, 2009; NHS, 2009^a), it would appear reasonable to propose that reducing the number of inactive individuals would lead to significant health benefits at a population level (CMO, 2011). Promoting the natural environment for physical activity participation is one concept that is becoming increasingly popular (Pretty et al., 2003). Within an urban context, natural environments like parks are resources for physical activity that are publicly provided, generally free, and accessible to most communities (Shores & West, 2010). As natural environments have been identified as places for mental restoration and social development (Ulrich, 1983; Kaplan & Kaplan, 1989) there is the potential to address a number of bio-psychosocial health inequalities (Bird, 2004). Combining physical activity within a natural environment like an urban park has been adopted by a number of agencies as a synergistic approach to increasing levels of physical activity, addressing health inequalities and improving overall individual bio-psychosocial wellbeing (Mind, 2007).

Although the primary interest of this PhD is the bio-psychosocial benefits of physical activity within an urban park environment, the literature review explores the broader field of human health and its connection to urban design and nature. The review embraces academic fields such as psychology, urban planning, landscaping, physical activity and recreation, public health policy and health promotion. Specifically, it was deemed imperative that due consideration was afforded to understanding the opportunity for and the inclination and ability of individuals to engage in physical activity in an urban park environment in order to ensure that any resulting advice, guidance and/or recommendations for policy and/or practice were grounded, feasible and contextually realistic. The thesis' specific emphasis on urban park and open green spaces as the natural environment is a consequence of the need to look at spaces that are accessible to the

populations that inhabit urban cities where health is in rapid decline (Marmot, 2010; CMO, 2011).

To investigate the concept of physical activity in urban green spaces, the first part of the thesis presents a literature review of current health inequalities, physical activity trends, an overview of public policies designed to increase physical activity and a discussion on parks and urban green spaces. The discussion then continues to critique the synergy between bio-psychosocial health and contact with nature, with a particular focus on urban parks. This aspect of the review will explore the effect of nature on bio-psychosocial health as well as emerging empirical evidence on the heightened effect of physical activity in natural environments. Finally a review of evidence surrounding the relationship between physical activity, health, cultural trends and the urban environment is presented. The literature review aims to provide a basis for the research aim and objectives in relation to current social trends and what is required to improve population health and wellbeing through the use of urban parks for physical activity purposes.

Chapter Two:

Literature Review

“The time is right for health promoters to take a close look at the evidence of the impacts nature has on the health of individuals and communities. Why? Because we may actually be able to achieve more appropriate and sustainable conditions that support health than if we only address interventions that focus on a particular health issue...”

St Leger, 2003: p174.

2.1. Introduction

The purpose of this chapter is to provide grounding for the thesis research aims and objectives. This involves a review of current health inequalities and physical activity trends, followed by an examination of public policy on physical activity development and the targeting of unhealthy behaviours. Finally the literature review will examine the current literature concerning the potential and actual benefits of using natural environments for individual wellbeing and physical activity purposes. Natural environments will largely, but not exclusively, refer to parks and urban green spaces. Although the primary focus of this thesis is focused on the bio-psychosocial benefits of physical activity in urban green spaces, literature surrounding the potential health impact of the wider social and built environment will be discussed as a grounding to reflect methods adopted in each phase of research.

2.2. Physical activity and health

In addition to poor nutrition and smoking, a lack of physical activity is among the top three modifiable risk factors for non-communicable disease and premature death (WHO, 2005). Engaging in physical activity has the potential to prolong life and provide a number of physical, psychological and social benefits (Fox, 1999; Biddle, 2000; Bull et al., 2004; DoH, 2004; Hamer et al., 2009; CMO, 2011). Physical activity is defined as,

"...any force exerted by skeletal muscle that results in energy expenditure above resting level" and includes "...the full range of human movement, from competitive sport and exercise to active hobbies, walking and cycling or activities of daily living" (DoH, 2004, p.81).

In 2011 the new CMO for England, Professor Dame Sally Davies, co-published *Start Active, Stay Active* (2011). This document updates the physical activity guidelines for children, young people and adults, but also includes new guidelines for children in early years and older people. The new recommendations aim to outline the amount and type of physical activity across the life-course, while also highlighting the health risks associated with sedentary lifestyles. For example, adults are recommended to incorporate moderate physical activity for at least 150 minutes (accumulated in bouts of at least 10 minutes or more) or 75 minutes of vigorous intensity activity¹ across a week, with exercises to improve

¹Moderate physical activity refers to engaging in activities that raise your heart rate and you feel warmer, but are still being able to carry on a conversation. In comparison people engaging in vigorous physical activity will breathe more rapidly (further increased heart rate), likely to break into a sweat and will only be able to speak in short phrases.

muscle strength on at least two days a week. (CMO, 2011). By incorporating regular physical activity its argued that individuals can reduce mortality rates, decrease the risk of chronic disease and improve psychological wellbeing, including reduced anxiety, depression and enhanced mood and self-esteem (Fox, 1999; Biddle, 2000; Bull et al., 2004; DoH, 2004; Raglin et al., 2006; Hamer et al., 2009; CMO, 2011).

Conversely, physical inactivity is now regarded as the fourth leading risk factor for global mortality and is commonly associated with an increased risk of obesity, coronary heart disease, hypertension, musculoskeletal conditions, cancer, depression and anxiety (CMO, 2011). For instance, physical inactivity, along with unhealthy dietary intake, has contributed to rapid increases in non-communicable disease, the most visible of these being obesity (DoH, 2004). In 2008 it was reported that in England 66% of men and 57% of women were overweight or obese, and almost a quarter of adults (24% of men and 25% of women) were obese (NHS, 2009^a). In summary, evidence suggests that not addressing unhealthy lifestyles could be detrimental to the overall health of the nation (CMO, 2011).

While the physiological benefits of being physically active are well documented, there is now mounting evidence that physical activity can contribute to psychological wellbeing by improving mood, self-perception, self-esteem and reducing stress and anxiety (Scully et al., 1998; Goodwin, 2003; Spence et al., 2005; CMO, 2011). Conversely inactivity has been linked to poor mental health (Biddle et al., 2000), with physical activity programmes shown to be as effective for the treatment of mental disorders (i.e. depression) as drug and psychotherapy (Blumenthal et al., 1999; Lawler & Hopker, 2001; Blumenthal et al., 2007). The rapid rise in non-communicable disease and mental disorders suggest that in spite of the known health benefits of physical activity, the majority of the population in developed countries who are able to participate choose to remain inactive (McKay et al., 2003; Finkelstein et al., 2005; Gidlow et al., 2010). Within the UK alone, physical inactivity costs the NHS up to £1.06 billion per year and affects more people than the combined total of those who smoke, misuse alcohol or are obese (CMO, 2011). Whilst it is recognised that medical treatment can prolong human survival, increasingly attention is focusing on preventative care and the social conditions that increase the likelihood of physical and psychological ill health (DoH, 2004). For example, physical activity is an integral factor in reducing health inequalities was recognised throughout the *2009 Annual Report of the Chief*

Medical Officer, (CMO, 2010), where the Chief Medical Officer Sir Liam Donaldson stated that

“The potential benefits of physical activity to health are huge. If a medication existed which had a similar effect, it would be regarded as a 'wonder drug' or 'miracle cure'” (p.21).

The latest (self-report) Active People Survey reported that only 21.6% of the population in England participate in 30 minutes of physical activity on at least 3 days per week, excluding active travel (Sport England, 2009). The *Health Survey for England* (NHS, 2009^a) reports slightly higher self-reported physical activity levels. This data includes active travel and reports that 39% of men and 29% of women meet the minimum recommendations for adults of 30 minutes of moderate activity on at least 5 days per week, although the limitations of self-reported data are documented when compared to objective measurements. When a sub sample of adults surveyed in the Health Survey for England were objectively measured for actual physical activity levels using accelerometers, only 6% of men and 4% of women met the current recommendations for physical activity. Similar figures were found in the US where objective measurements showed only 4% of the adult population adhered to recommended measures of physical activity (Troiano et al., 2008). Despite disparities in participation rates across surveys and measurements, all the data suggests that those who are physically active enough to accrue any health benefit are a minority population. With a low precedence for physical activity participation, tackling inactivity poses a growing challenge for governments and individuals given current cultural trends (CMO, 2011; Marmot, 2010; Gidlow et al., 2010).

2.3. Physical activity and the social environment

Several aspects of western culture have been associated with detrimental effects on human health. In 2007 the Foresight Tackling Obesity: Future Choices Project Report stated that,

“People in the UK today don’t have less willpower and are not more gluttonous than previous generations. Nor is their biology significantly different to that of their forefathers. Society, however, has radically altered over the past five decades, with major changes in work patterns, transport, food production and food sales.”

(Government Office for Science, 2007, p5)

The implementation of new technology in many aspects of work and leisure has led to reductions in physical activity and increased sedentary leisure opportunities (Biddle, 2000; Philipson, 2001; Finkelstein, et al., 2005; Cutts et al., 2009). For example, increased technology use has correlated with a reduction in outdoor activity, which in turn has been linked to an increase in ill health and a stark rise in conditions such as obesity and mental illness across all generations in western society (Frank, et al., 2004; Louv, 2005). Humans have in many ways become too efficient, especially in food production and energy saving technology, supporting the argument that,

“...technological revolution of the 20th century has left in its wake an ‘obesogenic environment’ that serves to expose the biological vulnerability of human beings”
(Government Office for Science, 2007, p8).

Beyond the industrial revolution, the modern era has seen a boom in science and technological advancement that has impacted upon all aspects of our lives through the increased use of communication technologies and labour saving devices designed to make everyday living more efficient. In western countries this has created a convenience culture, which includes a higher consumption of fast food and an increase in car use that has been designed to amplify time available for other life pursuits (WHO, 2005). Technological evolution has brought with it a major cultural shift that has impacted on health, whereby Astrand (1994) argues that, “...we are exposed to an enormous experiment – without control groups” (p.101), suggesting that the full effect and aftermath associated with modern living is not yet fully realised. Such technological advances have been purported to lead to the presence of fewer manual jobs and a decline in the time and effort required for household chores (Philipson, 2001; Government Office for Science, 2007). As a result the overall reduction in physical activity for daily pursuits has decreased whilst sedentary leisure activities, such as watching TV and playing video games has increased. Such activities have been blamed (rightly or wrongly) for the rapid rise in sedentary lifestyles and reduced use of the outdoor environment (especially parks and urban green spaces) for leisure purposes (Hu et al., 2001; Biddle et al., 2003; Frank, et al., 2004; Louv, 2005; Robinson & Godbey, 2005).

The rise in car use has been one of the most significant contributors to the decline in physical activity (Frank et al., 2004; Hinde & Dixon, 2005). Car use is not only associated with a reduction in physical activity, but contributes to rising pollution and congestion levels, both of which have an effect on individual health, wellbeing and the natural environment (WHO, 2006^a). Previously the UK has followed a model for increasing mobility across the country by designing the environment around cars and not people, which resulted in an increase in car use (Miller & Spoolman, 2009). Even as early as the 1960's the *Buchanan Report* (1963) warned against the adverse effects cars could have in urban areas if they were not controlled. Despite the early warnings, car dominance has led to a policy culture in the UK where progress was viewed as the ability to maximise car use. Conversely, the Scandinavian countries adopted a policy designed to encourage cities to be *free* from traffic, encouraging active travel. In 2006^b the WHO suggested that the biggest effect of the increase in car use is the subsequent decrease in active travel. Almost 70% of car trips are now less than 8 km in distance (DfT, 2007) and could be replaced by walking or cycling. Despite a need to decrease traffic, the dominance of the car as the preferred mode of transport (in the UK) is set to increase where the reliance on the car is now being passed down through the generations. For example in 2004 the Department for Transport found that 41% of primary and 22% of secondary age children are now driven to school each day (DoT, 2004). With motor traffic projected to increase by 12% in the coming years, and CO₂ emissions inversely related to this figure, incentives to move people away from cars towards active travel will help reduce some areas of congestion, reduce carbon emissions and manage future growth (Cavill et al., 2008). The promotion of active travel and local recreation opportunities has become increasingly relevant to the development of health, transport and environmental policies through government Public Service Agreement (PSA) targets (HM Government, 2007^{a-c}). Related PSA targets include a focus on the development and maintenance of natural urban green spaces to provide safe environments for activity (Cavill et al., 2008).

2.4. Workplace culture and Health

The way society is constructed and governed dictates in part how we view and 'participate' in health. As Smyth (2005) suggests,

Like places, diseases (and health) are not fixed realities but are situated and socially produced in particular historical, social, economic, cultural and political contexts' (Smyth, 2005, p.490).

The rise in mental health disorders has been partly attributed to modern living in western cultures where there has been a rapid rise in and reliance on technology (Dittmar, 2007; Kasser et al., 2007; Lopez, 2010). The way we use technology has changed the way we communicate with one another within society, especially within the workplace, which has eased the development of globalization. Although globalization has been seen to enhance political freedom, living standards and health conditions (largely across western countries), it has in turn developed a culture of achievement based on productivity (Kasser et al., 2007). This has contributed to a rapid shift in many western cultural belief systems that are now dominated by the construct of the labour market and capitalism (Dittmar, 2007). For that reason, Kasser and colleagues (2007) argue that the modern culture of capitalism has created *"a set of values based in self-interest, a strong desire for financial success, high levels of consumption, and interpersonal styles based on competition"* (p. 3).

A workplace culture of achievement based on productivity and the pursuit of wealth has a cost in terms of individual health and wellbeing. For instance, at the low end of the social gradient factors such as income inequality, unemployment and a reduction in skilled occupations has attributed to psychosocial stress, which in turn has had a negative impact on individual wellbeing and resultant health behaviours (such as increased smoking and alcohol consumption (Wilkinson, 1996; Siahpush et al., 2006)). With the World Health Organization estimating that by the year 2020 mental illness will be the second leading cause of death and disability (WHO, 2003), the need for mentally restorative environments to help manage health and well-being is even more evident.

2.5. An ecological approach to health

Human health and wellbeing can no longer be considered in isolation from the physical and/or social environment (Wilkinson & Marmot, 2003; Marmot, 2010). Where the health care system has previously dominated the approach to maintaining and tackling ill health, the emergence of health problems related to modern living has led to more attention to the relationship between people and the physical and social environment.

Interest in the potential of multilevel ecological models to understand the effect of urbanisation on human health behaviours has increased (Humpel et al., 2002).

Ecological models focus on environmental causes of behaviour and identify environmental interventions as a way of influencing health changes. Hancock and Perkins (1985) mapped the ecological perspective into their Mandala of Health (see figure 2.1), a model of the human ecosystem that attempts to link factors affecting health. This model focuses attention on the reciprocal causation between an individual and their environment. It postulates that there are three central holistic features of health, namely physical, mental, and spiritual, and the influences expanding out from the individual include the family, community and the built environment. The outer circle represents human culture and the biosphere (i.e. the wider society and natural environment). The model also includes the influence of the social sciences (psychology, sociology, economics, politics, anthropology) in the upper half of the figure, and the natural sciences (physics, chemistry, biology, engineering, ecology) in the lower half. The Mandala of Health model views the sick care system (i.e., health care) as only one factor of health, in addition to work and lifestyle (Hancock & Perkins, 1985). As Hancock (1993) explains,

“the Mandala makes it clear that no single strategy and no effort focused on only one aspect of the determinants of health can be wholly successful; it thus implies multi-level, multi-faceted, multi-disciplinary approaches”. (p42).

The Mandala of Health model acts as a conceptual tool, depicting the determinants of health and the hierarchies involved in the bio-psychosocial (including the spiritual) health and wellbeing of an individual as understood through modern culture and the environment (Hancock, 1993).

Figure 2.1: The Mandala of Health (Hancock and Perkins, 1985)

Although physical activity and other remedies for wellbeing can assist in improving bio-psychosocial health as part of an ecological approach, it is recognised that it is not possible to create a society absent of any ill health. Dubos (1965) conceptualises this precisely by stating:

'The concept of perfect and positive health is a utopian creation of the human mind. It cannot become reality because man will never be so perfectly adapted to his environment... It is true that the modern ways of life are creating disease that either did not exist a few decades ago or are now more common than in the past... The utopia of positive health constitutes a creative force because like other ideals, it sets goals and helps medical science to chart its course towards them' (Dubos, 1965, p346).

Dubos's (1965), concept needs to be recognised by policy makers if they are to fully embrace ecological models like the Mandala of Health when tackling population health inequalities across the social gradient.

2.6. Physical activity and the development of public policy: moving towards an ecological approach

Despite the aforementioned resistance to physical activity participation, the benefits are apparent and therefore strategies to increase participation are now a public health priority. Previously, the predominant message of health policies was to improve health through the reduction of food and alcohol and smoking cessation. It is only in the past decade that government documents have reported an explicit reference to the positive effect of physical activity on health and non-communicable disease. Prior to this, issues surrounding physical activity participation were largely addressed through the Department of Culture Media and Sport (DCMS) and related more to organised sports participation. In 2002 the DCMS, in collaboration with the Social Exclusion Unit (SEL), produced *Game plan: a strategy for delivering Government's sport and physical activity objectives* (DCMS, 2002). This landmark document outlined the government strategy and vision for both mass participation and performance sport. It provided an action plan for the development of sport and addressed issues of social exclusion by aiming to provide greater opportunities for mass participation.

Building on the philosophy of *Game Plan*, in 2004 the CMO's report entitled '*At Least Five a Week*' provided the UK's first authoritative public document solely outlining the evidence and impact of physical activity on health (DoH, 2004). In response to the rising obesity epidemic, the CMO called for a shift in society's attitude and behaviour towards physical activity, stating that,

"Being active is no longer simply an option – it is essential if we are to live healthy and fulfilling lives into old age" (2004, p.iii).

The report was shortly followed by the *Choosing Health White Paper* (DoH, 2004) and the related *Choosing Activity Action Plan* (DoH, 2005). These documents outlined the government's plan for supporting the public in making healthier choices. They also contained guidelines attempting to promote a cultural shift towards healthy living through the development of services focused on increasing physical activity levels across the UK. The *Choosing Health White Paper* (DoH, 2004) acknowledged that although the Department of Health is commonly associated with the delivery and maintenance of public health, there

was a need for other government departments to play their part in creating a healthier society. For instance creating and maintaining an environment which is conducive to physical activity involves both the Department for Transport (DfT) and the Department for Environment, Food and Rural Affairs (DEFRA). Therefore, unlike other policy documents, *Choosing Health* (DoH, 2004) created a cross government agenda, bringing together all agencies that have an impact on physical activity. As such, both the *Choosing Health* and *At Least Five a Week* documents presented a significant focus and shift in direction towards physical activity management, delivery and promotion that was not present in previous public policy documents.

In 2009 the DoH published, *Be Active. Be Healthy*, an update of the *Choosing Activity Action Plan*. The document further encouraged cross government department working, with local government and delivery organisations urged to place physical activity at the hub of a community. The main aim of cross sectional working was to create frameworks to improve individual health (not just address ill health), increase business productivity and improve the environment. The adopted framework for the delivery of physical activity was based on local needs, with a particular emphasis on using the 2012 Olympics legacy as a driving force for mass participation. Sport and Physical Activity Alliances were developed across England to create partnerships that would enable cross government and industry delivery of physical activity initiatives, presenting new investment opportunities and delivery infrastructures (i.e., following the aim of increasing local power for physical activity delivery).

To implement policy proposals and track change, in 2007 the government announced the latest round of 3 year PSAs designed to measure the performance of local authorities against a comprehensive spending review. In relation to physical activity and health the main PSA's include:

- PSA 12: Improve the health and well-being of children and young people. (HM Government, 2007a)
- PSA 18: Promote better health and wellbeing for all. (HM Government, 2007b)
- PSA21: Build more cohesive, empowered and active communities. (HM Government, 2007c)

In part these PSA agreements relate to reducing health inequalities by increasing physical activity participation. The Department of Health is responsible for all the indicators underpinning the noted PSA's. Indicators are related to outcome measures (i.e. objective measurements) that should be affected if PSA's were addressed. For example PSA 18 is measured by all-cause mortality, smoking rates, the ability to live independently and the proportion of people with depression and/or anxiety disorders who are offered psychotherapy (HM Government, 2007b).

Since 2005, and specifically to assist in the delivery of PSA health targets, the National Institute for Health and Clinical Excellence (NICE) has produced a number of documents aimed at providing guidance on health promotion and ill health avoidance. Guidance is largely based on cost effectiveness and efficiency in reducing health inequalities. NICE health based guidelines support a variety of methods to address physical inactivity, and related non-communicable disease. Interventions to address physical inactivity tend to use educational, behavioural and social, and/or environmental and policy approaches (Kahn et al., 2002). Educational approaches aim to increase physical activity by providing information to motivate behaviour change and are often based on a medical model, for example providing health related consequences of inactivity (Cavill & Bauman, 2004). Behavioural and social approaches are often based on health promotion models aimed at changing individual and group behaviour. Conversely, the environmental and policy approach intends to increase opportunities for physical activity by providing the environment or activities in which to participate. Figure 1 illustrates the link between national policy and legislation, regional and local plans and the types of intervention that can increase levels of physical activity. The framework demonstrates the complexities of addressing inactivity and supports cross government agendas for multi-level strategies that combine both environmental and individual level interventions. The physical activity framework was used to develop NICE guidance and recommendations relating to a series of approaches and settings to encourage physical activity, including local community engagement.

Figure 2.2: The links between national policy, local plans and the types of intervention that can increase levels of physical activity (NICE, 2008a, p14).

In 2008 NICE published the environmental public health guidance *Promoting and Creating Built or Natural Environments that Encourage and Support Physical Activity* (NICE, 2008a). The document recommends prioritising the strategy of physically active communities through the design of new and existing transport networks and the built environment. This is one of the first public documents to examine the evidence from current literature related to the effect of physical activity in synergy with the environment (promoting evidence based practice). Within the NICE (2008a) guidelines, policy makers are targeted as an integral part of implementing recommendations through rules and regulations that put physical activity at the heart of a community, as well as designing and maintaining places that enable and encourage physical activity. It should be noted that although the natural environment was cited in the document title, the majority of recommendations are linked to the built environment, transport networks and habitual activity. Upon consideration of guidance on the use of the natural environment to increase physical activity it was deemed that,

"...this type of project (i.e., green gyms) was outside the scope of the guidance because it focused mainly on increasing the physical activity levels of individuals, rather than changing the environment. "

(NICE, 2008a, p.16).

There remains some disparity between public policy and recommendations directly related to potential benefits and delivery of physical activity in a natural environment.

Despite physical inactivity accelerating as a political agenda in the past decade, the CMO's *2009 Annual Report of the Chief Medical Officer* (CMO, 2010) expressed a need for even greater action. Under the heading '*Moving to Nature's Cure*' (p21) the CMO outlined current rising trends in inactivity, with a specific focus on declining fitness levels of children (up to 9% fall of physical activity participation to recommended levels per decade). This data, combined with a rise in non-communicable disease, suggests that despite an increase in public policy focused on preventative care, it is yet to have any real impact on mass population health. To help further address physical activity inequalities, one of the CMO's main recommendations included a need for further research in order to, "... *establish the most effective interventions to increase physical activity within specific age groups*" (CMO, 2010, p 29). This statement supports the fact that whilst epidemiological evidence demonstrates that physical activity is beneficial for health, there is no clear evidence presented on "*how best*" to increase the uptake of physical activity within the community.

Following the CMO's annual report (2010), Professor Sir Michael Marmot released the Marmot Report (2010); a strategic document that aimed to inform public policy and develop an approach to tackling health inequalities. Central to the report's approach is the aforementioned notion of creating the conditions for people to take control of their own lives and assisting them in choosing healthy living, but via local power as opposed to central direction. One of the main report findings stated that:

"National policies will not work without effective local delivery systems focused on health equity in all policies." (Marmot, 2010, p15).

Despite some infrastructure development since the 2004 *Choosing Activity White Paper*, Marmot argued that more needed to be done in order to put communities at the centre of interventions. This includes emphasis on creating quality urban green spaces as a means of tackling health inequalities. Marmot (2010) advocated a need to turn the research, policy

and theories into practical action within communities. He proposed that in order to achieve this, there must be some form of evidence based practice embedded into the delivery system to provide informed practice and guidance back to policy makers for future development.

The Healthy Lives, Healthy People (2010) white paper takes account of the marmot recommendations and highlights the broad determinants of health (including physical activity). The most significant change outlined in this document in comparison to the previous white paper is the shift of responsibility for public health or 'wellness' from the NHS to local authorities, with local directors of public health sitting within councils rather than PCTs. The role of local decision making is expected to help address the wider social determinants of health as more services are run that can influence health are coordinated by councils. Following the release of the white paper, in 2011 the Healthy Lives, Healthy People: A call to action on obesity in England document highlighted weight management and the reverse trend in obesity prevalence as one of the key aims to improve public health. While physical activity was still deemed as important, the driving message for weight management was related to calorie intake, with the government enforcing partnership working with local authorities, businesses, charities, health professionals and individuals to achieve this goal (e.g. working with industry to voluntarily reduce calories contained in food and drink). In essence the Healthy Lives, Healthy People: A call to action on obesity in England demonstrated a shift towards greater individual responsibility for weight management. This was in contrast to recommendations made in the Foresight Report (2007), which focused on environmental factors of an 'obesogenic environment' (Evans et al., 2012) and recommendations made by obesity experts that changing the environments within which those decisions are made is likely to be far more effective than merely exhorting people to make better choices (Rutter, 2011,p746).

Although environmental factors may not be the driving force behind Healthy Lives, Healthy People: A call to action on obesity in England (2011), the document does outline the responsibility placed on local organisations to provide mechanisms for healthy living and refers to the Natural Environment White Paper (2011). This is a resource to support the development of natural green spaces for bio-psychosocial health, although interestingly refers to physical benefits gained and not directly to obesity prevalence and weight gain.

2.7. Future public policy and reducing health inequalities

A multi-level ecological approach for health development now needs to be considered to effect sustained cultural changes across all social gradients (Marmot, 2010). This can only truly be achieved by addressing deep-rooted cultural trends (including inactivity) that often span generations. Despite the recognition for change, increased bureaucracy and short term funding cycles appear to be reducing opportunities to develop a culture of change and fully engage local communities in this process (NICE, 2008b). Furthermore public documents like the NICE guidelines have been formulated from a hierarchical methodology of evidence assessment that favours empirical 'scientific' evidence. It could be argued that evidence utilising more qualitative methodologies may actually be more relevant in providing ecological approaches to addressing health inequalities (Cummins et al., 2007). Additionally it is not currently obligatory for policy makers and organisations to fully adopt NICE guidelines. It would appear that, although guidance has been developed by relevant professionals and experts in the field, more *statutory* mechanisms need to be implemented for improved adoption of recommendations. Foresight from current and future governments to commit to long term strategies and investment is therefore essential for evidence based practice to develop and have an impact on the desired cultural shift (Wallerstein, 2006; Government Office for Science, 2007). Designing interventions based on current theories and findings from emerging research is integral to understanding the cultural shift toward inactivity and developing approaches that will appeal to communities to reverse unhealthy trends (NICE, 2008a; CMO, 2010; Marmot, 2010; Rutter, 2011).

A holistic (and ecological) approach to wellbeing postulates the consideration of the individual alongside the environment in which they exist, taking into consideration the interaction between psychological, physiological, environmental, spiritual and social elements of health (Hancock & Perkins, 1985). For holistic methods to be fully integrated into the political and social system, the reductionist approach of performance indicators and target setting (i.e., PSA's often governed by a positivist approach) need to be dissolved, so deeper understandings can be researched and understood for future health benefits (St Leger, 2003).

2.8. The public value of parks and urban green spaces.

Although environmental factors are now recognised as having a central impact on health and wellbeing, political agendas have tended to focus on large eco-systems and environmental degradation (i.e., air pollution and sanitation) with less attention attributed to the nature and environments in local neighbourhoods (Chiesura, 2004; Kellert, 2004). For example within England funding to maintain green spaces has fallen significantly, which is reported to impact use (CABE, 2006^b). Urbanised natural environments or green spaces have been defined as,

“...open, undeveloped land with natural vegetation... and include, for example, parks, forests, playing fields and river corridors” (Mitcham & Popham, 2008, p1,655).

The majority of the population now live in urban environments that (typically) lack large green spaces (Antrop, 2004; Maas et al., 2009). This in turn has led to communities disengaging from nature and the natural environment (Louv, 2005). Parks and urban green spaces have now become the main source of natural landscapes within expanding urban environments. With research findings reporting that the human shift away from natural landscapes is detrimental to bio-psychosocial health and wellbeing (Bird, 2004; Pretty, 2004), the movement away from nature requires redressing; especially as, for people living in urbanised areas, parks and green spaces may be their only available contact with nature (Maller et al., 2002).

Despite the link between nature and health, over the past few decades funding for the management and maintenance of parks and urban green spaces has seen significant cutbacks that have subsequently led to the deterioration and erosion of aesthetic features in many urban locations (CABE, 2006^b). Such neglect has led to natural spaces that are often either ignored by local residents and typically associated with negative antisocial social interactions such as crime or delinquency, or have been replaced with formal leisure and sports facilities only utilised by the few (Rohde & Kendle, 1997; Evenson et al., 2006). With a wealth of literature now linking the use of parks to health and wellbeing (e.g., Giles-Corti et al., 2005^a) the sustained physical and monetary investment of parks and urban green spaces appears vital (Bird, 2006).

In reaction to the way in which health is now being conceptualised by deliverers and policy makers (i.e., in response to the rise in non-communicable disease), more diverse holistic approaches incorporating natural environments are being explored by a number of agencies (e.g. Natural England's Green Exercise programmes (Natural England, 2009)). The approach has encouraged opportunities for managers of parks and urban green spaces to develop pathways for natural environments to be included on the health agenda and increase the political importance of these spaces (Bird, 2006; CABI, 2006^a). Moreover, although it has been recognised that the maintenance cost of green natural spaces may be deemed as high by some, it has been argued that the cost of not providing them through consequential social care will more than compensate for the overall cost to the economy (Bird, 2004).

In 2006 Bird carried out a cost benefit analysis of London's Royal Parks on the health of local residents. Among these, Regents Park was deemed to contribute to 6.1% of all physical activity undertaken by a population that lived within a two-kilometre radius of the park. It was calculated that this directly saved the economy a minimum of £4.1 million pounds and the NHS £641,000 a year. Bird (2006) estimated that should a group of 120 healthy individuals over the age of 60 become more active (i.e., to recommended levels of 5x30 mins), then over a ten year period the active group (in comparison to an inactive group) would potentially see 20 less deaths, 7 fewer heart attacks, 3 less strokes, and 13 fewer cases of osteoarthritis of the knee (a disease which can cause mobility disability). Based on this analysis, the cost saving potential of increasing physical activity should encourage a shift towards more programmes that would engage people in active sessions within a park or urban green space environment.

More recently CABI (2010) reported that people who live in urban areas of deprivation are five times less likely to have access to public parks and quality green spaces than people in affluent areas of England. Given that living close to parks and green spaces has been found to reduce mortality rates (Takano et al., 2002; Villeneuve et al., 2011), and more significantly reduce the life expectancy gap between those at the top and those at the bottom of the social gradient (Mitchell & Popham, 2008), it would seem reasonable that providing access to quality parks and urban green spaces for all residents would significantly reduce the health inequalities between social groups.

Although changing the urban infrastructure and developing more programmes that promote the use of parks and urban green spaces would require investment from the onset as a form of preventative care, over a period of time the savings would become apparent in other domains, for example with a reduction in the number of working days lost (i.e., through sickness, ill-health and some sort of debility) and reduced healthcare costs (Bird, 2006; Hansmann et al., 2007). To support the integration of natural environments into urban cities, companies like the government funded CABI Space, are now emerging. In addition to efforts by existing organisations like the Forestry Commission and Natural England, the concept of natural environments benefiting bio-psychosocial wellbeing is gaining momentum. If the provision of (usable) local parks and urban green spaces has a positive impact on a populations' bio-psychosocial health and wellbeing and this can be fully realised, then public policy may incorporate the integration and protection of these spaces further for urban sustainability strategies (Chiesura, 2004).

2.9. Bio-psychosocial wellbeing and contact with nature

Despite the recent surge in empirical studies, the connection between bio-psychosocial wellbeing and access to natural environments like parks and urban green spaces is not a new one (Smyth, 2005). Fredric Law Olmsted is perhaps one of the most recognised names of the 19th century for the design of New York's Central park. At this time,

"...parks were hoped to reduce disease, crime and social unrest, providing 'green lungs' for the city and areas for recreation" (Rohde & Kendle, 1997, p319).

Olmsted was an innovative architect who conceptualised healthy places as motivation for his work (Frumppkin, 2003). He stated that being in a natural setting,

"...employs the mind without fatigue and yet exercises it; tranquilizes it and yet enlivens it; and thus through the influence of the mind over the body gives the effect of refreshing rest and reinvigoration to the whole system" (cited in Ulrich et al, 1991, p204).

This philosophy was evident throughout the Victorian era when parks were built into industrial urban environments with the specific purpose of becoming areas of escape and to encourage outdoor exercise for health benefits (Krenichyn, 2006).

Studies have shown associations between bio-psychosocial wellbeing and access to natural environments through viewing, being in the presence of, or interacting directly with nature. (Moore, 1982; Ulrich, 1984; Ulrich et al., 1991; Hartig, 1993; Kaplan, 2001; Frumpkin, 2003; Pretty et al., 2005; Chang et al., 2007). Early studies focused on the health effect of viewing natural landscapes as opposed to the built environment. This has contributed to a growing body of evidence that now supports the individual bio-psychosocial benefits that can arise from viewing natural objects or landscapes (e.g. Moore, 1982; Ulrich, 1984). For instance, Ulrich (1984) found that hospital patients who had a natural environment view from their bed had reduced admission time and less pain relief was required for recovery. Similar results had previously been found in prisons, where less sick visits were recorded when prisoners had access to natural views (Moore, 1982).

Within the workplace, psychological benefits have been found among adult workers who have experienced reduced stress levels and a higher work performance when natural views or items such as plants are present (Kaplan & Kaplan, 1989). Even planting trees next to major roadways or passing through natural landscapes whilst driving has been found to reduce stress, reduce blood pressure and heart rate (Parsons et al., 1998). Laboratory based studies have been used to objectively measure the physiological responses of viewing nature, specifically after stressful experiences (e.g., Ulrich et al., 1991; Chang et al., 2007). A study by Ulrich and colleagues (1991) showed that the viewing of a 10-minute video of natural settings, following the watching a horror film, brought faster and more complete stress recovery in comparison to watching a 10-minute video of urban settings. Physiological data from this study suggested that the natural landscape elicited a positive restoration effect on psychological wellbeing that in turn had an impact on the parasympathetic nervous system, which in turn produced physiological health benefits (Ulrich et al., 1991).

Psychological benefits as a result of being in the presence of, or interacting directly with nature, include reduced stress levels (Parsons et al., 1998; Hartig et al., 2003; Laumann et al., 2003; Pretty et al., 2005; Krenichyn, 2006; Pretty et al., 2007; Van den Berg & Custers, 2010), improved mood states (Hartig et al., 2003; Pretty et al., 2005; Krenichyn, 2006; Pretty et al., 2007; Van den Berg & Custers, 2010) and improved attentional capacity (Kaplan, 1995; Faber Taylor et al., 2001; Hartig et al., 2003; Laumann et al., 2003). Biological health outcomes include decreased blood pressure and improved fitness (Bodin & Hartig, 2003; Pretty et al., 2005; Pretty et al., 2007). These health benefits have been linked to increased work productivity and quicker patient recovery (Ulrich, 1984; Kaplan, 1995; Cimprich & Ronis, 2003; Diette et al., 2003).

2.10. 'Green' theories

The notion of why physical activity in natural environments is so beneficial to biopsychosocial wellbeing is largely based upon the principles of the 'Biophilia Hypothesis' (Kelert & Wilson, 1993). Biophilia theory stems from an Evolutionary Psychology perspective and postulates that humans have an innate affinity with nature that has developed over thousands of years (Wilson, 1984). Wilson (1993), states that,

"Biophilia...is the innately emotional affiliation of human beings to other living organisms. Innate means hereditary and hence part of ultimate human nature." (p.31).

Specifically, the biophilia theory recognises that humans are a part of, and have a need to connect with, nature. In this sense, a connection with nature tends to increase the general well-being of an individual and their subsequent understanding of natural ecosystems (which humans ultimately need to survive). From a holistic viewpoint, an individual's,

"...need for nature is linked to the influence of the natural world on our emotional, aesthetic, cognitive and spiritual development." (Chapman, 2002, p. 53).

As already discussed, the emergence of the technological age has had a profound effect on individual health, specifically psychological wellbeing. Under Biophilia hypothesis it is believed that the innate psychological needs that are provided through the human affiliation with nature are mismatched with the synthetic technological progress that has

developed over a relatively short time in our evolution history (Suzuki, 1997). In western societies people have lived in urban areas for relatively few generations, therefore it is likely that humans are yet to adapt and evolve to this type of environment (Kellert & Wilson, 1993; Kellert, 1997). Parsons (1991) suggests that the stress associated with modern urbanisation is an indication that urban environments are not optimal living environments for humans. As well as the dissociation with nature, the urban environments have seen the increasing development of living conditions known to be conducive to stress, including pollution, crowding, noise and motorised traffic (Parsons, 1991). The increased urbanisation and the aforementioned cultural changes in life pursuits (e.g., work and leisure) appears to have resulted in a breakdown of the human – nature link (Kaplan & Kaplan, 1989; Louv, 2005). The Biophilia hypothesis proposes that the rediscovery of nature can reinvigorate people, resulting in bio-psychosocial benefits and changes to the current destructive (health and the environment) cultural trends (Kellert & Wilson, 1993).

Based on the principles of the Biophilia hypothesis, there have been two dominant, and to some extent conflicting, theories related to the health benefits gained through nature; Stress Reduction Theory (SRT) (Ulrich, 1983) and Attention Restoration Theory (ART) (Kaplan & Kaplan, 1989). Both SRT and ART attempt to explain the psychological benefits gained through engaging with nature, and offer a deeper understanding as to why psychological, and in some instances physical benefits are evidenced when humans become more connected with nature.

Through the ART, Kaplan & Kaplan (1989) argued that a connection with nature allows for attention restoration within individuals who may have fatigued concentration capacity. The Kaplans' work is inspired by William James (1892), who in the 1890's described two types of attention: directed attention and involuntary attention. Directed attention is related to the capacity to restrain competing stimuli (distractions) to increase concentration on directed tasks. In contrast involuntary attention is an effortless response to incoming stimuli based on interest and fascination. Where directed attention is susceptible to psychological fatigue, involuntary attention allows for attention restoration (Kaplan, 1995; Chang et al., 2007). Kaplan (1995) stated that increasing a person's capacity for directed attention can have a significant (positive) effect on brain functioning (e.g., work and problem solving); enhances cognitive processes (e.g., general perception, goal setting and

regulating behaviour); and can support interpersonal and social contact with others (e.g., with reduced irritability and stress). These predictions are increasingly supported by recent literature (Bodin and Hartig, 2003; Chang et al., 2007; Van den Berg et al., 2007; Berto et al., 2010)

ART is based on a cognitive framework and builds on the premise that restorative environments can support recovery from mental fatigue brought on through directed attention (Kaplan & Kaplan, 1989; Berto, 2005). The theory contends that humans have a limited cognitive capacity where mental fatigue can leave individuals less capable of dealing with demanding tasks thus creating a certain level of uncertainty and confusion (Chang et al., 2007). However psychological recovery is possible through incorporating natural environments for the purpose of indirect attention (Kaplan & Kaplan, 1989). ART proposes that four elements of an environment or situation should be present to support the restoration of a depleted capacity to directed attention. The components of a restorative environment include being away, extent or coherence, fascination and compatibility (Kaplan, 1995). Firstly Kaplan (1995) argues that psychological distance or '*being away*' from an individual's usual environment and/or routine that uses directed attention can aid restoration. This includes individuals distancing themselves from usual routines and environments (i.e., work and home) and situations that can elicit stress and continued directed attention. Secondly *extent or coherence* refers to the immersion into another physical or conceptual environment that sustains attention for exploration and involvement. Thirdly, *fascination* in this context refers to stimuli and processes that capture *effortless* attention that is captured through the environment. This includes flora or fauna that can engross and fascinate individuals and give a sense of connectedness to nature. Finally *compatibility* refers to a match between what a person wants to do, what the environment affords a person to do, and what the environment physically demands from the individual. Often natural settings provide opportunities for restorative activities that people want to participate in (e.g., fishing, gardening or simply observing nature) away from more governed life pursuits like work (Kaplan, 1995). Although ART supports the use of natural environments as a place for physical activity, few studies have examined a preference for restorative environments in relation to the four ART elements (Hartig & Staats, 2003). Whilst Chang and colleagues (2007) argue that places that incorporate all four components of a restorative environment are preferable in order to promote involuntary attention, they also propose that detailed research needs to be undertaken to

establish which elements may precede others in importance (a detail not discussed by Kaplan, 1995).

Ulrich's (1984) SRT focuses more directly on the psycho-physiological responses to nature. Original studies supporting SRT have primarily been carried out in contained environments such as hospitals (Ulrich, 1984; Ulrich *et al.*, 1991) and prisons (Moore, 1982). Results from these studies appear to support the use of natural scenes for recovery and reduced sickness. As with the Biophilia Hypothesis, SRT adopts a more evolutionary perspective. Specifically, SRT contends that individuals experience an innate and usually positive emotional response when they are exposed to nature. Hansmann and colleagues (2007) argue that being exposed to unthreatening natural environments “...*activates a positive affective response, a behavioural approach orientation, and sustained, wakefully relaxed attention*” (p214). Therefore, it is likely that stressed individuals experience reduced negative emotions as a consequence of being exposed to natural spaces (Ulrich, 1983). Although Ulrich (1983) did not delineate the types of natural environments that may be beneficial for stress reduction, recent research suggests that aesthetically pleasing sites to be an important element to individuals.

Pretty and colleagues (2003) researched the effects of active participation within a natural environment. They identified ten different countryside activities, ranging from conservation work through to fishing, within Great Britain and recruited participants of each to carry out a series of psychometric tests before and after activities. Nine out of the ten case studies experienced a significant improvement in self-esteem after the activity, with a significant decrease in depression, anger and tension. Surprisingly there was no significant difference between the type of activity, the length of time people were in contact with the green environments for and levels of exercise (vigorous to gentle). In a later study Pretty and colleagues (2005) found that the *relative* attractiveness of natural environments had an effect on psychological (e.g., mood and self-esteem) and physiological (e.g., heart rate and blood pressure) responses. They explored the effect of different environment scenes (natural and city landscapes) on physical and mental health during and after exercise. In the study four groups of participants viewed one of the following scenes: urban pleasant; urban unpleasant; rural pleasant and rural unpleasant, with an additional control group who were not exposed to any images. They found that although there was health

benefits associated with the exercise found in the control group, benefits associated with lower blood pressure and improved self-esteem and mood were significantly higher in the rural and urban pleasant scenes. In contrast the urban unpleasant scene produced negative mood outcomes that were lower than the control group. The authors concluded that viewing pleasant rural scenes whilst taking part in exercise could have positive effects on blood pressure, self-esteem and mood that go beyond just viewing nature (Pretty et al., 2005). This study supports the theoretical stance that natural environments can improve psychological well-being beyond that of a built environment ((Ulrich, 1984; Wilson, 1984; Kaplan & Kaplan, 1989).

As Pretty and colleagues (2005) study suggests, city landscapes can have an adverse effect on individual well-being. In contrast to natural landscapes, city environments have been linked to bio-psychosocial ill health (Frank, et al., 2004; Louv, 2005; James et al., 2010) and in particular an increase in mental disorders (WHO, 2002). Guite and colleagues (2005) wanted to identify the connection between mental health and the physical and social factors of the urban environment. They found that dissatisfaction with access to green space was one of five significant contributors to poor mental health (in addition to control over internal environment, quality of housing design, fear of crime and social participation within communities). They concluded that even when other confounding factors like socio-economic status and individual demographics are taken into account, dissatisfaction of a person's social and physical environment was related to mental ill health (Guite et al., 2006).

More recently distraction therapies, based on SRT, have used natural sights such as scenic landscape views and natural sounds (e.g., bird or water recordings) for patients undergoing painful invasive procedures within hospital settings. Diette and colleagues (2003) found that natural scenes tend to reduce pain, anxiety and increased overall patient satisfaction figures. This positive response to patient exposure to natural scenes consequently lowered the economic cost of patient treatment, reducing time spent in the hospital and a reported reduction in the use of prescriptive drugs. Diette and colleagues (2003) concluded that distraction therapy using nature can be an effective part of patient recovery and treatment. This supports Schroeder's (1992) viewpoint that because people see natural areas as a

refuge away from the pressures of urban life; viewing nature as a form of distraction therapy can contribute positively towards our physical and mental health.

Whilst both ART and SRT concur that individuals benefit from natural environments, Ulrich (1983) follows an evolutionary perspective that forms a small aspect of Kaplan & Kaplan's (1989) cognitive approach (Parsons, 1991). Despite some noted differences between ART and SRT as to how nature can effect humans, they have often been used interchangeably as a grounding for why psychological benefits occur as a result of nature (Hansmann et al., 2007).

Overall it appears there is some synergy between psycho-physiological wellbeing and natural environments, as proposed by both ART and SRT. Specifically, it appears that (reduced) stress is an important element of psychological well-being, and that stress reduction is aided through the natural environment. An increased detachment from the natural environment towards urbanisation has brought with it a number of modern ailments, which the Biophilia theory argues can be addressed through reconnection. Similarly, a number of empirical studies have produced anecdotal evidence to support ART and SRT, demonstrating the importance of natural environments for psychological restoration and not just for physical activity pursuits.

Within the current climate of inactivity, research has started to focus on the synergistic benefits of combining physical activity with natural environments (Bodin & Hartig, 2003; Pretty et al, 2005; Hansmann et al,2007; Pretty et al, 2007). The synergism of combining activity with nature has been referred to as 'green exercise' (Pretty, 2004). A growing body of research investigating green exercise suggests that physical activity in a natural environment may provide increased health benefits when compared to exercising in the built environment or physical activity independently (Pretty et al., 2004; 2005; Krenichyn, 2005; Hansmann et al., 2007; Pretty et al., 2007).

2.11. Physical activity, health and parks and urban green spaces

Within urban cities local parks are recognised as accessible natural environments. Extensive literature now links parks and urban green spaces with health and physical activity participation (Kaczynski & Henderson, 2007; Lee & Maheswaren, 2010). For example Giles-Corti and colleagues (2005^b) examined the correlation between an individual's access to quality (i.e., aesthetically pleasing) green space in relation to physical activity participation. Results showed that 28.8% of residents reported using public open space for physical activity purposes. Increased access correlated with higher participation levels and after taking into account increased attractiveness, decreased distance and adequate size, the effect was even greater with 50% of people more likely to access public open space. Furthermore Giles-Corti and colleagues reported that the quality and aesthetic pleasantness of parks and urban green spaces is just as important as the size of the space in attracting people for physical activity purposes. Similarly Sugiyama and colleagues (2007) found that perceived neighbourhood greenness was correlated with recreational walking and strongly associated with mental health. Later Maas and colleagues (2009) carried out a cross analysis between morbidity and the percentage of green spaces within a 1km and 3km radius of households. They found that the prevalence of ill health and mental disorder was lower the closer households were to green spaces, especially among children and households with lower socioeconomic status. These studies have contributed to a rising number of research papers that appear to support the argument that local neighbourhood parks and urban green spaces are an important element for increasing and encouraging physical activity (e.g. Wendel-Vos et al., 2004; Zlot & Schmid, 2005; Ball et al., 2006).

Although there is a compelling reasoning behind the use of local parks for health purposes, conflicting evidence has also emerged. Hillsdon and colleagues (2006) investigated whether access to green spaces had any impact on *actual* physical activity participation, taking into account aesthetics, distance and size of the urban green spaces in proximity to the respondent households. Contrary to previous research (e.g., Giles-Corti et al., 2005) Hillsdon and colleagues found no significant correlations for any of the variables, with those participants with more access to green space actually reporting lower levels of physical activity. Correspondingly, when Foster and colleagues (2008) carried out an observational study, they found that access to green space was not associated with walking for recreation, with the distance to facilities having no significant effect on the uptake of physical activity. Despite the lack of correlation between physical activity and park use,

Hillsdon and colleagues (2006) did conclude that self-assessed levels of physical activity may well have been over or under estimated and that although utilisation of parks for leisure was not reported, it does not mean there are no benefits when using these spaces, only that the parks and urban green spaces may have been under-utilised. Both of these studies used quantitative methodologies when investigating park use. This meant that although a measurement of park use and access to green spaces were objectively calculated there was a lack of context and meaning to their theories as to why no correlations existed. Research investing in both qualitative and quantitative methodologies would enhance the understanding of park and urban green space use for physical activity among the populations surveyed (Foster et al., 2008).

In a systematic review of the current academic and grey literature, Lee and Maheswaran (2010) concluded that whilst most studies reported findings that support the notion that parks and natural green spaces are beneficial for health, establishing a *real* causal relationship is difficult. Lee and Maheswaran (2010) provide a ‘comprehensive’ review of current literature, as with many public policies and national guidelines (e.g., NICE) the research employs a positivist approach where

“...much of the emphasis of health promotion efforts have been driven by health jurisdictions, who see health promotion as a way of addressing specific mortality and morbidity outcomes”
(St Ledger, 2003, p173).

The grounding for the review of Lee and Maheswaran was based on the maximisation of individual wellbeing by seeking evidence that shows a causal relationship between health and the natural environment. Evidence was ‘graded’ using a scientific methodology, which tends to be negligible and dismissive of findings that do not show cause and effect. As Fromm (1993), states:

“...drawing conclusions from empirical evidence, even if we cannot explain the evidence theoretically, is a perfectly sound and by no means ‘unscientific’ method, although the scientist’s ideal will remain to discover the laws behind the empirical evidence” (p4).

Whilst Lee & Maheswaran (2010) acknowledge that “...*the available evidence does on balance suggest a positive association between green spaces and better health*” (p9), they still concluded that the evidence was not strong enough to inform public policy because of the lack of evidence reporting a *direct* effect. Although this type of review is not exclusive in its findings on the impact parks and urban green spaces potentially have on health and physical activity, it is not alone in stating that evidence should be in the form of objective empirical research that can result in quantifiable methods (e.g., Kaczynski & Henderson, 2007). However, whilst this type of evidence may move towards providing a causal effect on health, it fails to answer questions by researchers who want to understand the underlying principles of human use and benefits of natural environments (i.e., the focus is on establishing a relationship rather than understanding the relationship, e.g., Foster et al., 2008).

2.12. Framing the research questions to the thesis

Increasingly questions as to the economic and human value of parks and urban green spaces are being asked (Chiesura, 2003). Evidence from recent research has shown bio-psychosocial benefits associated with using parks and urban green spaces for physical activity participation, and that particularly within an urban environment, using natural spaces for this purpose may be vital for individual health and wellbeing (Bodin & Hartig, 2003; Krenichyn, 2006; Pretty et al., 2005, 2007). The review of current policies relating to physical activity and health documented the facilities parks and urban green spaces can provide (i.e., in terms of leisure opportunities) but was negligible of the full bio-psychosocial potential of these spaces. Overall there is still a need to translate the research findings and theories into the political domain and provide practical actions within communities.

This thesis builds on and contributes to work in physical activity, health and the environment by examining the potential for the built and natural environment to evoke different emotions and how physical activity programmes in urban parks and green spaces can be promoted to local residents in order for them to experience and accrue the aforementioned health benefits. Based on an ecological model, the thesis addresses these issues by using a multi-method approach across three phases of research, including a reconnaissance phase, exploratory study and social intervention. The implication of the research is concerned with individual and societal wellbeing, where there are increasing

mental health problems and rising levels of obesity (Frumpkin, 2003). Research took place in the city of Liverpool, which is situated in the north west of England. Local information specific to the Liverpool population are detailed as part of the reconnaissance phase as a grounding for the exploratory study and social intervention.

2.13. Thesis aims

The overarching purpose of this thesis is to understand the individual needs, experiences and perspectives towards parks and open green spaces, in order to support future interventions and policies that incorporate the principles that can enhance potential bio-psychosocial health and wellbeing. Based on the literature review, the aims of this thesis include:

- Aim 1: Assess the extent to which the urban environment influences physical activity participation and access to parks and urban green spaces among Liverpool residents.
- Aim 2: Ascertain whether bio-psychosocial responses are improved within an urban park compared to an urban city environment.
- Aim 3: Develop an understanding of an individual's psychological and social experience of accessing urban parks and green spaces.

2.14. Thesis Objectives

The above aims will be achieved through the following objectives:

Objective 1: Carry out a reconnaissance of the following:

- I. Health inequalities in the city of Liverpool utilising national data and local reports
- II. Physical activity participation among Liverpool residents utilising national data sources
- III. Investigate whether physical activity is associated with deprivation and social and physical characteristics of the environment in Liverpool utilising a pre-existing data set

- IV. Investigate resident perceptions of distances to local parks and park quality utilising a pre-existing data set.

Objective 2: Complete an exploratory study to ascertain:

- I. Biological effects of viewing Liverpool park scenes as opposed to city centre scenes (quantitative).
- II. Psychological and social responses to urban parks and urban cities (qualitative).

Objective 3: To deliver a park based social intervention, implementing knowledge derived from the scoping and exploratory study phases.

Chapter Three:

Philosophical Positioning & Adopted Methodologies

“All our knowledge has its origins in our perceptions.”

Leonardo da Vinci

3.1 Philosophical positioning

The role of the researcher in the interpretation of knowledge gathered is often driven by their philosophical positioning, with transparency in the research process important to be able to claim valid relations between data and realism. Therefore, when undertaking research of this nature it has been argued that it is important to consider the researchers philosophical positioning (Guba, 1990). This includes research paradigms (viewpoint of the complexity of the real world that guides the researcher) and matters relating to ontology (view on the nature of reality as objective or subjective), and epistemology (knowing how you can know). It is contended that the research paradigm is inseparable from the researcher's ontological, epistemological and methodological positioning (Denzin & Lincoln, 1998), where according to Dobson (2002),

"The researchers theoretical lens is also suggested as playing an important role in the choice of methods because the underlying belief system of the researcher largely defines the choice of method"

The research paradigm debate sits with the quantitative and qualitative epistemological 'divide'. The most common aim of quantitative research is to provide an objective, impartial analysis. Within the social sciences quantitative observations should be treated as entities in the same way that natural scientists treat physical phenomena (Johnson & Onwuegbuzie, 2004). In contrast qualitative research is to explore a phenomenon from the perspective of those being studied and offer an understanding of an experience in the context of personal and social circumstances (Spencer et al., 2003). Qualitative methods enable in-depth examination of individual experiences and perspectives as they have encountered them in real-life experiences (Denkin & Lincoln, 1994). In qualitative research it is accepted that the research focus is on meaning and understanding in an attempt to answer questions that can be sensitive and elusive in quantified studies (Richardson, 2000; Patton, 2002).

The use of quantitative methods has largely been aligned to the positivist paradigm. Positivism predominates in the natural sciences and assumes that inquiry should be objective (i.e. time and context free generalizations), bias free, emotionally detached and empirically justify a stated hypothesis (Denzin & Lincoln, 1998; Healy & Perry, 2000). The

writing style adopted is predominantly impersonal, with a passive voice and technical terminology (Tashakkori & Teddlie, 1998). This is in contrast to qualitative approaches that incorporate rich and empathetic description, now incorporating increasing creative writing and interpretation of the social reality (Tierney, 2010). The qualitative perspective is predominantly associated with the interpretivist paradigm. For interpretivists the social world consists of and is constructed by meanings. The social world does not exist in an objective form, but instead is experienced subjectively because of the meaning people give to it, with the knower and the known seen as inseparable Guba (1990, p.81),

These research paradigms are seen as distinct and should not be mixed, a view held by Guba (1990) when he argued that, *“accommodation between paradigms is impossible... we are led to vastly diverse, disparate and totally antithetical ends”* (p.81). While this debate is ongoing, more recently the position of mixed method research and a paradigm convergence that draws from the strengths of each has emerged (Johnson & Onwuegbuzie, 2004; Creswell & Plano Clark, 2010). Johnson and Onwuegbuzie (2004) suggest that,

“Mixed methods research offers great promise for practising researchers who would like to see methodologists describe and develop techniques that are closer to what researchers actually use in practice... Much work remains to be undertaken in the area of mixed methods research regarding its philosophical positions, designs, data analysis, validity strategies, mixing and integration procedures and rationales, among other things.” (p. 15)

The present thesis will represent a noticeable shift across research paradigms as I, the researcher change my personal philosophical positioning to represent the best methods to investigate the bio-psychosocial benefits of physical activity in parks and urban green spaces. While the methodologies incorporated may be viewed as in contrast to each other (Guba, 1990), the data and narrative build a picture of the phenomena into the research subject.

3.2. Thesis Structure, paradigms and methodologies

The contents of chapters 4 to 6 represent each phase of research relating to each of the thesis objectives. Each phase seeks to contextualise meaning to the understanding of the

bio-psychosocial benefits of physical activity within parks and urban green spaces.

Chapter 4 presents the reconnaissance phase investigating health inequalities, physical activity participation and perceptions of the natural and built environments in Liverpool. This phase represents a positivist perspective in utilising objective measurements and describes existing evidence of health inequalities and investigates perceptions of the local natural and built environment. Secondary analysis of an existing data set is incorporated to gain some understanding of perceptions of local residents in the city of Liverpool.

Chapter 5 is an exploratory study and includes both quantitative and qualitative methods to investigate the bio-psychosocial responses to urban city centre and park environments. This phase considers information gathered in both the literature review and the reconnaissance phase to inform the methodology and study grounding. In addition to physiological measures, this study incorporates the use of semi-structured interviews to explore participant experiences and what urban park and city environments mean to them. Interviews aim to draw out participant experiences and perspectives on the subject matter in their own words and are a useful tool in gaining insight into the range and profundity of individual experiences and understandings (Patton, 1987). In essence this study becomes an extension of the previous positivist work, but with the incorporation of the interviews becomes an engagement with interpretivism. This stems from elements of inductive as well as deductive interpretation of interview data where knowledge was socially constructed

Chapter 6 presents the social intervention, which applied the principles and evidence base from the previous two phases to implement a park based programme with a group of teenagers from Liverpool. This chapter describes researcher, participant and practitioner experiences and perspectives of a park based intervention using ethnographic principles of research. Unlike the previous two phases, representation within the ethnographic engagement required more of an inductive lens and an author involved form of creative writing that is arguably more aligned to a constructivist paradigm. The social intervention delves deeper into 'external' influences such as social class, gender, race and other systems that constructivists are generally concerned Lincoln (2001).

The mixed method approach across the research fits with the reality of the social environment and the context that we work within as researchers and practitioners. While different methodologies have been adopted across the research, the aim to understand the individual needs, experiences and perspectives towards parks and open green spaces, remains resonate throughout. Utilising mixed methods in this instance provided an opportunity to build a picture of the research area and reality of practice that qualitative or quantitative methods alone may not have achieved.

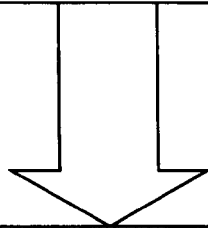
Chapter Four:

Reconnaissance

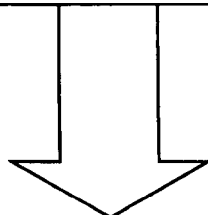
“We must do nothing less than transform the environment in which we all live. We must increase the opportunities we all have to make healthy choices around the exercise we take and the food we eat.”

Phase One: Reconnaissance

The reconnaissance phase explores health inequalities, physical activity participation and access to parks in Liverpool. This phase investigates existing evidence surrounding health inequalities and includes secondary analysis of an existing data set as part of a scoping exercise into social and physical environmental determinants of physical activity participation. The exploratory phase is designed to inform the study design of phase two.



Phase Two: Exploratory Study



Phase Three: Social Intervention

4.1. Introduction

When embarking on this research it was necessary to investigate the context of the local domain and collect relevant information that would inform any resulting intervention. The reconnaissance phase was necessary in the first instance to become familiar with the local population, understand their needs and identify possible ways of implementing change that takes on board the relevant theories. The aim and objectives outline the purpose and directive of the reconnaissance phase.

4.1.1. Reconnaissance phase aim and objective

The first phase will address the following thesis aim and objective:

Aim 1: Assess the extent to which the urban environment influences physical activity participation and access to parks and urban green spaces for Liverpool residents.

Objective 1: Carry out a pre-study reconnaissance of the following:

- i. Health inequalities in the city of Liverpool utilising national data and local reports
- ii. Physical activity participation among Liverpool residents utilising national data sources
- iii. Investigate whether physical activity is associated with deprivation and social and physical characteristics of the environment in Liverpool utilising a pre-existing data set
- iv. Investigate resident perceptions of distances to local parks and park quality utilising a pre-existing data set.

The proceeding sections will examine each of the phase objectives to form a scoping exercise in preparation for phase two.

4.1.2. Health Inequalities in the City of Liverpool

The City of Liverpool is situated in the northwest of England in the Merseyside region. Liverpool is the eighth largest city in the United Kingdom, with a population of 434,900

(Liverpool City Council, 2007). Liverpool is one of the most socially deprived areas within England, with substantial health inequalities in comparison to the rest of the nation. More than half of Liverpool residents reside in the 10% most deprived areas in England (Noble et al., 2008). Of the 354 local authorities within England, Liverpool is the most deprived and ranked 3rd for income and 2nd for employment deprivation. Figure 4.1 provides a visual map of these health inequalities against national and regional indicators of deprivation.

Figure 4.1: Deprivation of Liverpool residents by ward in comparison to the England and North west average (Source: APHO & Department of Health. © Crown Copyright 2010)

In terms of physical health measures, a recent Liverpool Ward Profile Series detailed that almost one-quarter of Liverpool residents reported a limiting long term illness, with 13% of residents claiming incapacity benefit (Liverpool City Council, 2007). Life expectancy rates for Liverpool residents are approximately 3 years below the national average for both men and women and recorded mortality rates are significantly higher than the average mortality rate in England (Liverpool Public Health Intelligence Team, 2009). This includes significantly higher rates for most types of cancer, coronary heart disease and the prevalence of stroke. Equally Liverpool has a high smoking prevalence and is amongst the one of worst areas in England for alcohol-related health disorders. Moreover Liverpool

residents have the lowest overall mental wellbeing score in the North West of England (Deacon et al., 2010).

With such prevailing health inequalities, Liverpool is one area in England that has been targeted by national policies to reduce health inequalities by improving resident lifestyles (Liverpool PCT, 2010). Socially deprived communities and places of low physical activity participation have been targeted by public policy in an attempt to reduce health inequalities. As Liverpool has notable health inequalities and low levels of physical activity participation in comparison to the national average, it is an ideal location for the investigation of the biopsychosocial benefits of physical activity in urban park and city environments.

4.1.3 Physical activity participation among Liverpool residents

Increasing physical activity opportunities within local neighbourhoods is one way of helping to reduce health inequalities (CMO, 2010; Marmot, 2010). As outlined in the literature review, currently there are minimum recommendations for adults to incorporate moderate physical activity for at least 150 minutes (accumulated in bouts of at least 10 minutes or more) or 75 minutes of vigorous intensity activity across a week, with exercises to improve muscle strength on at least two days a week. (CMO, 2011). According to the latest Active People Survey (Sport England, 2009), only 19.4% of the Liverpool population participate in 30 minutes of physical activity on at least 3 days per week, below the national average of 21.3%. Whilst there is debate surrounding the reliability of self-reported measures of physical activity (e.g. Shephard, 2003), what the figures demonstrate is that those people who are physically active are still in the minority population (Biddle & Mutrie, 2008). As physical activity is considered important in the maintenance of health, then the low self-reported levels provides further evidence that participation needs to be addressed (Cochrane et al., 2009).

4.1.4 The role of urban environments for physical activity participation

In the last decade increasing attention has been paid to the role of the urban environment on influencing population physical activity and decreasing health inequalities (Lopez and Hynes, 2006; CMO, 2010). The construction of the urban environment has been critical

in shaping behaviours that have led to recent rises in non-communicable disease (Humpel et al., 2002; Cochrane et al., 2009). Urban spaces that encourage inactivity through convenience have been dubbed '*obesogenic environments*' (Government Office for Science, 2007; James, 2008). It has been argued that if the design of urban environments could encourage physical activity as part of everyday living, then this could increase '*spontaneous*' activity and increase calorie expenditure (James et al., 2010). For example, James and colleagues (2010) calculated that in China, farmers who moved from a rural to an urban environment for work purposes would reduce their energy needs by 300-400kcal/day. Transferring from active travel to a car could further reduce energy intake by another 100kcal/day. Thus the transfer to urban living (and the increased likelihood of partaking in sedentary activities like television viewing) should lead to a reduced energy intake of between 400-800kcal/day (James et al., 2010).

Working and living conditions have contributed significantly to negative shifts in healthy behaviours. This has influenced emerging research and internationally coordinated studies that focus on the characteristics of local neighbourhoods as a predictor for persistent trends in overweight and obesity and low physical activity participation (Lopez and Hynes, 2006; Cerin et al., 2007). It is now widely acknowledged by public health experts that there is an urgent need for more evidence surrounding the impact of urban environments on physical activity participation (Government Office for Science, 2007; NICE, 2008^a). To date study findings suggest that physical activity is more likely to be incorporated into everyday living when neighbourhoods have higher levels of residential density, street connectivity, land-use mix (proximity to facilities) and are aesthetically pleasing (Humpel et al., 2004a,b; Giles-Corti et al., 2005^b; Leslie et al., 2005; de Nazelle et al., 2011). In relation to the theme of this thesis, parks and urban green spaces for recreational purposes are also considered an important feature of urban environments for encouraging physical activity (Giles & Donovan, 2002; Bedimo-Rung et al., 2006; Cutts et al., 2009). As previously stated, individuals who live within walking distance of urban parks are nearly three times more likely to participate in recommended amount of daily physical activity (Giles-Corti et al., 2005^a). This supports the view that park proximity is an important feature of urban environments for encouraging physical activity in local neighbourhoods (Cutts et al., 2009; Coombes et al., 2010).

4.1.5 Liverpool’s parks and green spaces

Figure 4.2 depicts the abundance of parks and green space across Liverpool. The map illustrates large public parks and open green spaces in the north and south of Liverpool, with large open spaces in the east. Green belt land is highlighted in the south with vast vegetation along the roads and railways in the west of the city. Large public parks have been highlighted on the original image to provide an indication of the expanse spaces provided within Liverpool. In addition to these are a large number of smaller parks across the city. The image was created to demonstrate the plethora of green space in the city (i.e. parks, gardens, allotments, trees, green roofs, cemeteries, woodlands, commons, grasslands, moors and wetlands) as part of CABE’s Grey to Green campaign. The campaign highlights the importance of natural green spaces to improve public health (and adapting to climate change). Liverpool was one of three places chosen to highlight the green infrastructure network across the city. Although this map demonstrates a vast amount of green infrastructure within the city, it fails to show the quality of these spaces and whether there are any strategic links between housing, green spaces / routes, encouraging physical activity participation and supporting local communities with local facilities.

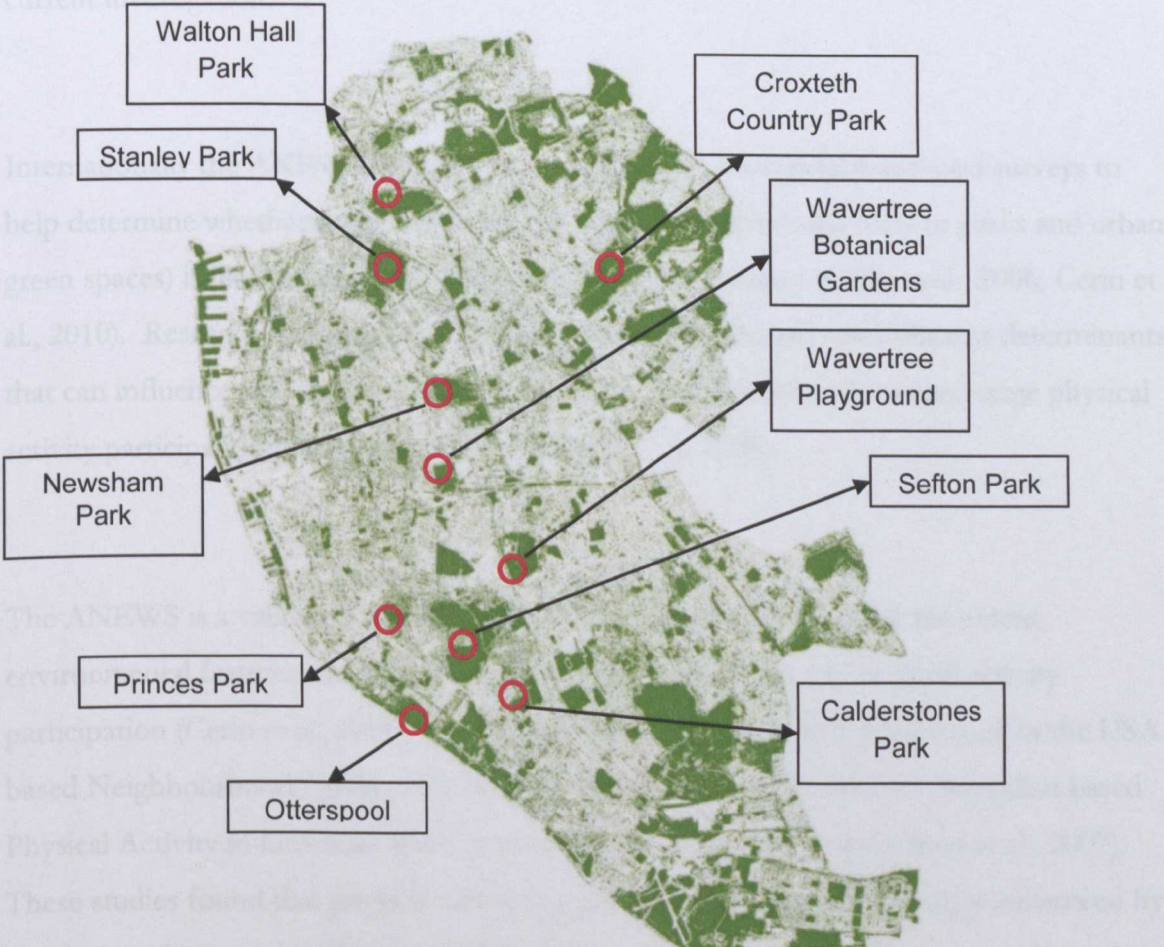


Figure 4.2: CABE Grey to Green campaign (2011):
Liverpool Green Infrastructure Network (including reference points for large public parks)

4.1.6. Secondary data analysis: The ANEWS

The Abbreviated Neighbourhood Environment Walkability Survey (ANEWS) was previously utilised by a local Liverpool evaluation team as part of the Liverpool Neighbourhood Satisfaction Survey (LNNS) to investigate the effect of the built environment on physical activity participation in neighbourhoods across the city. For the purpose of this thesis, secondary data analysis was undertaken using subsections of this data to provide further insight into access to neighbourhood parks in Liverpool and whether physical activity is associated with deprivation and social and physical characteristics of the local environment. Secondary data analysis was adopted as a method in this instance due to funding restraints (particularly costs associated with large sample survey collection) and because the data available could provide some insight into the research aims and objectives (Boslaugh, 2007). Although based on a cross sectional design, the data was collected in Liverpool which is the right geographic location for the purpose of this research. The following paragraphs outline the purpose of the ANEWS and previous applications of the survey. The subsequent methods section details the application of ANEWS in Liverpool and how the data is utilised for the purpose of the current investigation.

Internationally the ANEWS has been incorporated into local neighbourhood surveys to help determine whether neighbourhood infrastructure (including access to parks and urban green spaces) is likely to promote physical activity participation (Cerin et al., 2006; Cerin et al., 2010). Research utilising the ANEWS has helped to identify environment determinants that can influence the structure and design of local neighbourhoods to encourage physical activity participation (Saelens et al., 2003a; Leslie et al, 2004).

The ANEWS is a validated survey that has been developed to quantify the extent environmental features can impact neighbourhood walkability and physical activity participation (Cerin et al., 2006). A longer version of the survey has been used in the USA based Neighbourhood Quality of Life Study (Frank et al., 2009) and the Australian based Physical Activity in Localities and Community Environments Study (Owen et al., 2007). These studies found that physical activity (in particular walking behaviour) is influenced by physical environment attributes. Although low walkability areas in the latter study tended to be more aesthetically pleasing, with more natural features, the lack of other environment

attributes (i.e. community facilities and road safety) did not encourage physical activity participation (Leslie et al., 2004). This suggests that while aesthetics and natural features are important for encouraging physical activity (Hansmann et al., 2007) other environmental and social factors might influence overall participation in local neighbourhoods (Leslie et al., 2004; Hillsdon et al., 2006).

Adapting local neighbourhoods into places that promote physical activity provides more opportunity for people to self-select physical activity as a lifestyle choice (Levine et al, 2005). Although it is not yet clear whether the walkability of a neighbourhood has any real influence on increasing overall physical activity levels, research utilising the ANEWS has helped to identify environmental determinants that can influence the structure and design of local neighbourhoods to encourage participation (Leslie et al, 2004). If environmental characteristics are found to have an effect on physical activity and access to parks and open green spaces, then this would advocate the need to develop public policy that encourages urban planning and protects recreational space for physical activity opportunities and related bio-psychosocial benefits (Sallis et al, 2004).

4.2. Method: Secondary Data Analysis

4.2.1. Original survey sample and setting

The original data collection occurred between February and July 2008. A seven-page survey entitled the Liverpool Neighbourhood Satisfaction Survey (LNNS) was distributed with information explaining the purpose of the survey and related instructions for completion (See appendix 1). Using convenience and opportunistic sampling, the survey was distributed across workplaces, organised groups and organisations that interact with Liverpool residents. Distribution methods included paper copies and online internet access to the survey. Due to funding restraints no incentive was given for participation and to increase the response rate local authority staff recommended that personal data (i.e., name and full address) was not collected. The final response rate was 232.

4.2.2. Measures and Instruments

The ANEWS was included in the LNNS to identify perceived environmental influences on physical activity and associations with individual demographics. The survey consisted of three sections to acquire information on (1) perceptions of environmental characteristics (ANEWS) (2) physical activity participation and (3) demographic variables.

Information on individual physical activity participation was collected using the General Practice Physical Activity Questionnaire (GPPAQ). The GPPAQ is a validated short measure of physical activity originally developed for the Primary Care Trust to assess adult physical activity levels (NHS, 2009^b). The measure generates a 4-level Physical Activity Index (PAI) categorising individuals as: Active, Moderately Active, Moderately Inactive, and Inactive. The PAI category classifications are as follows (NHS, 2009^b):

Inactive	Sedentary job and no physical exercise or cycling
Moderately inactive	Sedentary job and some but < 1 hour physical exercise and / or cycling per week OR Standing job and no physical exercise or cycling
Moderately active	Sedentary job and 1-2.9 hours physical exercise and / or cycling per week OR

	Standing job and some but < 1 hour physical exercise and / or cycling per week OR
	Physical job and no physical exercise or cycling
Active	Sedentary job and ≥ 3 hours physical exercise and / or cycling per week OR
	Standing job and 1-2.9 hours physical exercise and / or cycling per week OR
	Physical job and some but < 1 hour physical exercise and / or cycling per week OR
	Heavy manual job

Data surrounding walking accumulation in a week is also collected as part of the GPPAQ, but does not contribute to the overall PAI category classification. In addition to the GPPAQ participants were asked to report the number days they accumulated at least 30 minutes of moderate intensity physical activity in the past week (assessing self-reported measures against the national recommended levels, CMO, 2010).

The socio-demographic variables included postcode, age, gender, disability and employment status and ethnicity. Unlike previous studies (i.e. Leslie et al., 2004), income was not taken into account as a measure of social status. As postcodes were collected as part of the LNSS, this data was used to assess deprivation (which is inclusive of income). The Index of Multiple Deprivation (IMD (Noble et al., 2008)) is calculated against postcodes and measures deprivation at the area level (referred to as lower level super output areas (LLSOA)). Deprivation in this study “...refers to unmet need, which is caused by a lack of resources of all kinds, not just financial...” (Noble et al., 2008; p9). As a reflection of this definition, the IMD combines seven domain indices (economic and social impacts of deprivation) into a single deprivation score, so areas across England can be ranked against one another. The seven domain indices Include: Income; Employment; Health deprivation and disability; Education, skills and training; Barriers to housing and services; Crime; and living environment. As deprivation is prominent in Liverpool it is expected that a high percentage of survey respondents will live within the top 20th percentile of deprivation within England (indicating high levels of economic and social deprivation).

4.2.3. Design and data analysis

The original LNSS adopted a cross sectional design, analysing self-reported survey data (Humpel et al., 2002) collected from a variety of distribution methods (paper and on-line surveys). To calculate environment perceptions within the ANEWS, each of the Likert scale questions were given a score of 1-4 or 1-5 dependent on degree of agreement with each statement (Saelens et al., 2003^a). Once completed these scores were combined for each of the sub-sections to produce a walkability score for each respondent (see appendices 2 - 7 for individual question walkability scores). Walkability scores were then combined into category subsections (Cerin et al., 2006). The secondary analysis will focus on data that has been shown to influence use of and access to neighbourhood parks and green spaces. Therefore in addition to descriptive data relating to park and recreational access, the following ANEWS subscales were included in statistical analysis:

- Infrastructure and safety for walking
- Traffic hazards
- Aesthetics
- Street connectivity

Results are presented in two parts. Firstly, a descriptive analysis of the sample provides an overview of the respondent demographics, reported physical activity and an insight into perceived accessibility and quality of local parks. Particular attention is paid to perceptions of, and perceived distances to, parks to assess whether access is a potential barrier within local neighbourhoods.

Secondly, as previous research indicates that deprivation and environmental determinants (in this case the 4 environment subscales) are indicators of physical activity participation, a multiple regression analysis was performed. Specifically, a hierarchical multiple regression analysis was performed to see if there are any correlations between these predictors and PAI, with a second analysis performed for number of days respondents were physically active for 30 minutes or more in the preceding week. Significance was set at $P < 0.05$ for the regression analysis. The rule of at least 15 participants per predictive variable was adopted within the analysis (Stevens, 1996). Analysis was conducted using SPSS version 17.0 software and MS-Excel (percentage agreement).

4.3. Results

4.3.1 Descriptive analysis: Sample demographics

In total 232 people responded to the survey, with 225 included within the secondary analysis (based on missing variables). Table 4.1 shows, compared with the general population of Liverpool, survey respondents were higher in the proportion of women (71%; Liverpool 51%), respondents aged 31 – 50 years (47%; Liverpool 34%), no disability (79%; Liverpool 75%), and white British (96% Liverpool 94%). The majority of respondents were in full or part time employment (74% and 10% respectively), with 65 per cent of households having no dependents in residence.

Figure 4.3 shows the percentage of valid survey respondent according to postcode data (n=227) IMD scores in each ranked category followed the same pattern as the Liverpool population, with 45 per cent of participants falling within the 20 per cent most deprived households in England.

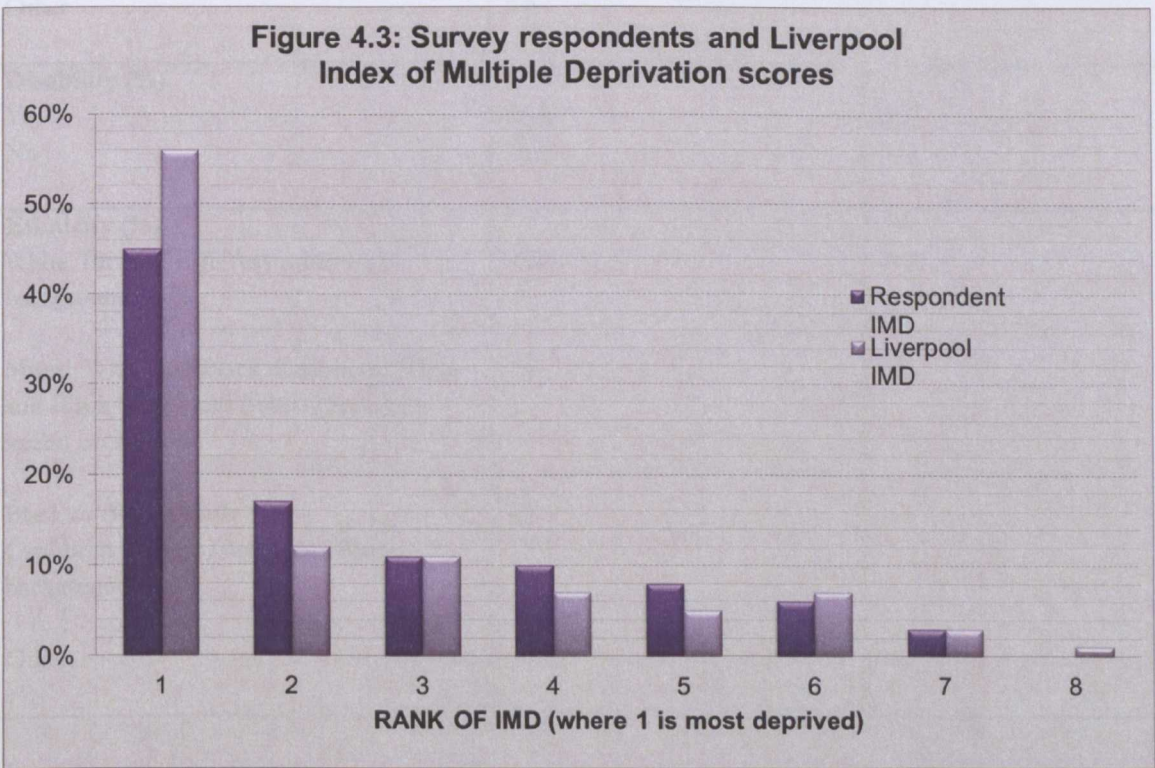


Table 4.1: Respondent demographics in comparison to the Liverpool population.

	Sample Population	Liverpool Population Reference
Sex (%)		
Male	29	49
Female	71	51
Age Categories (%)		
19 - 25	10.8	13.5
26-30	14.3	10.8
31-35	8.3	7.7
36-40	14.3	8.4
41-45	9.1	8.9
46-50	15.2	9.3
51-55	12.6	8.4
56-60	6.5	7.2
61+	8.9	25.8
Employment Status (%)		
Employed full time	73.7	--
Employed part time	9.6	--
Student	3.1	--
Unemployed	0.9	--
Retired	11	--
Other	1.8	--
Disability (%)		
Yes	20.8	24.6
No	79.2	75.4
Ethnicity (%)		
White: British/Irish/Any other white background	95.6	94.3
Mixed: White and Black Caribbean/White and Black/White and Asian/Any other mixed background	1.8	1.8
Black or Black British: Caribbean/African/Any other Black background	0.9	2.3
Other	1.8	1.6

4.3.2. Reported physical activity participation

Figure 4.4 shows self-reported data on the number of day's respondents were moderately active during the previous week (at time of survey completion). Results show that 70 per

cent of the population did not meet physical activity recommendations (CMO 2011). Among women this figure rose to 72 per cent compared to 64 per cent for men.

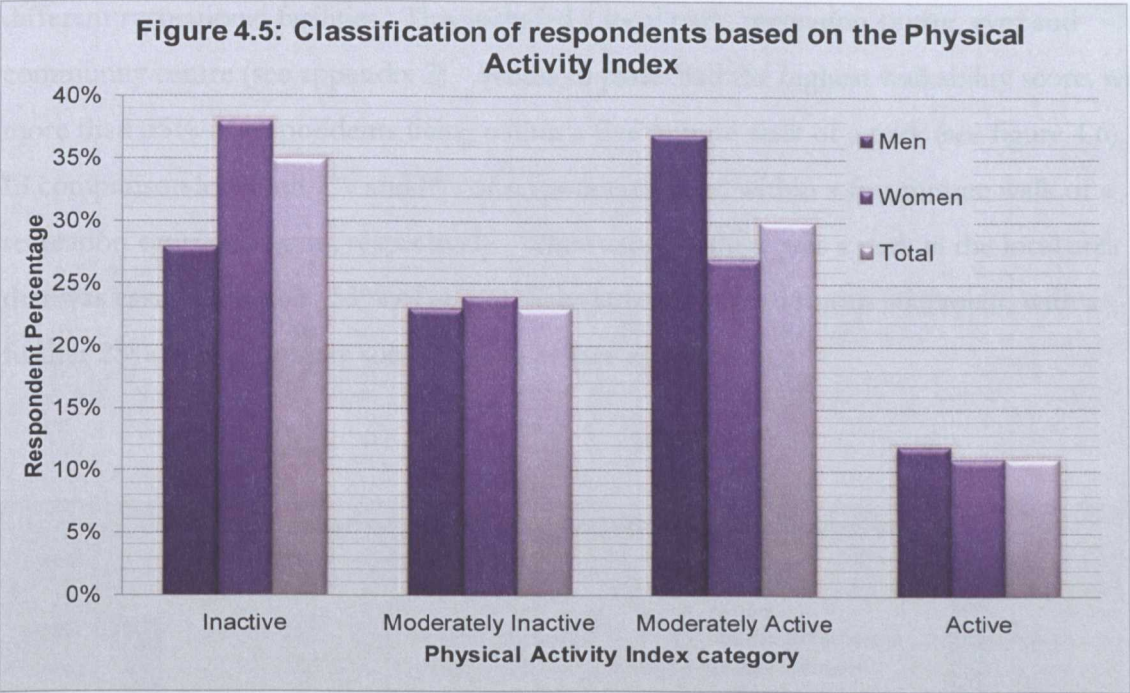
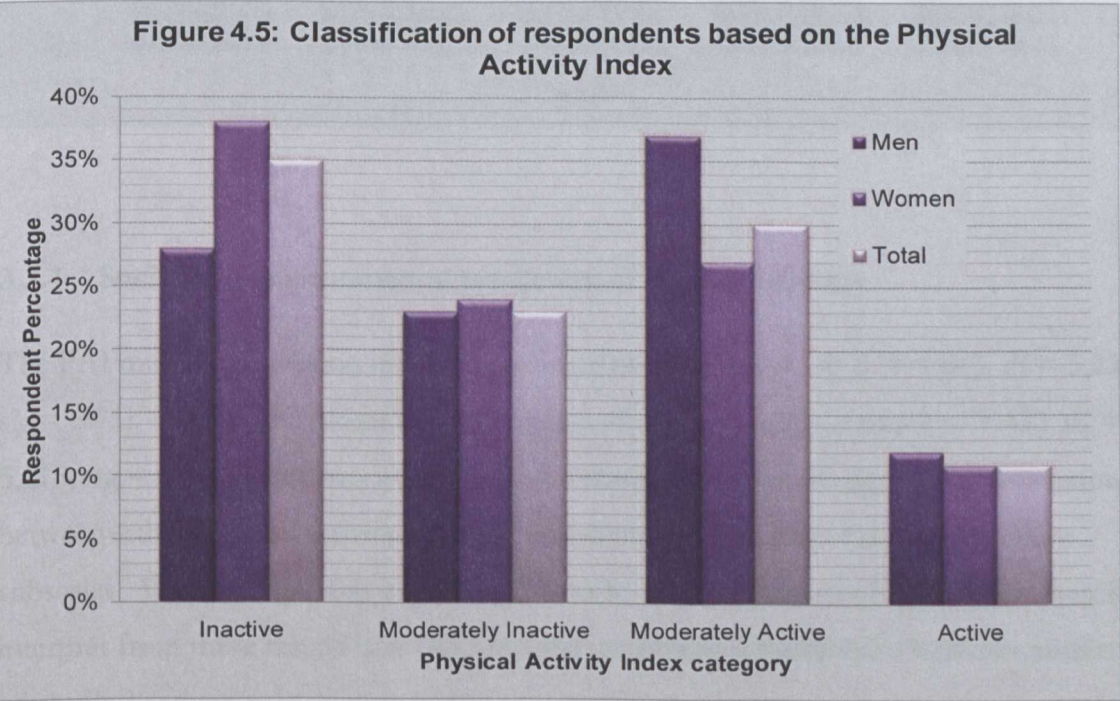
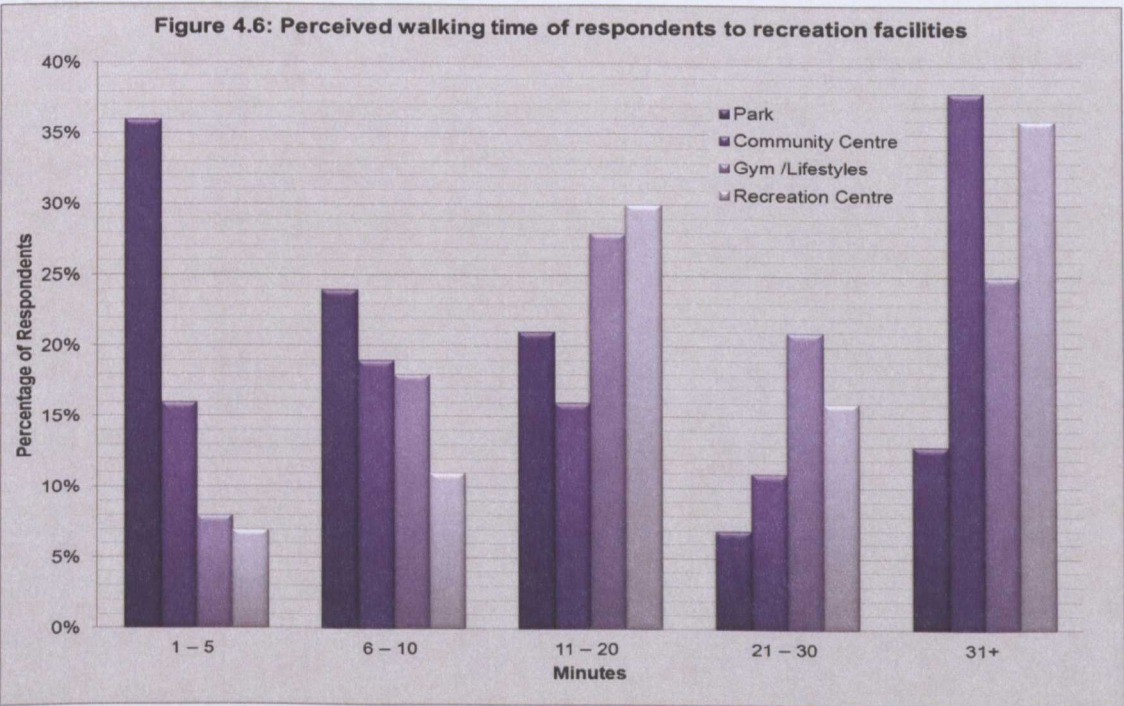


Figure 4.5 shows the percentage of respondents for each PAI scale (NHS, 2009^b). Only 10 per cent of respondents were categorised as active, with more than one in three participants categorised as inactive. A Chi square analysis found that in this sample males were significantly more active than females ($\chi^2 (1, N=82) = 23.61, p=.000$).



4.3.3 Perceived access and quality of parks

As part of the ANEWS respondents were asked their perceived walking distances to different recreational facilities. This included a local park, recreation centre, gym and community centre (see appendix 2). Access to parks had the highest walkability score, with more than 35% of respondents living within a five minute walk of a park (see figure 4.6). In comparison less than 7% and 8% of respondents lived within a five minute walk of a recreation centre and gym, respectively. When asked if there was a park in the local area that was easily accessible, 55% of respondents strongly agreed to this statement, with a further 28% indicating they somewhat agree (see appendix 5).



3.3.4 Social and environmental predictors of physical activity

The PAI multiple regression model was not statistically significant ($F = 1.083$, $df = 5,220$, $sig.= .371$), nor was the model for the number of days physically active ($F = 1.452$, $df = 5,218$, $sig.= .207$). Furthermore, as Table 4.2 shows there was no significant association between either physical activity measure with deprivation or any of the environment subscales. With both models explaining 1% or less of the variance (R^2_{adj}), we can therefore interpret from these results that IMD and the environmental subscales were not predictors of physical activity participation within the sample population.

Table 4.2: Influence of environmental subscales on two measures of self-reported physical activity (n=272)

	b	SEb	β	R²	R²_{adj}
# Days Physically Active				.032	.010
Constant	2.635	1.589			
IMD	-.012	.008	-.109 ^{ns}		
Traffic Hazards	.260	.374	.047 ^{ns}		
Infrastructure & safety for walking	-.255	.361	-.051 ^{ns}		
Street Connectivity	.318	.180	.121 ^{ns}		
Aesthetics	.149	.240	.046 ^{ns}		
Physical Activity Index				.024	.002
Constant	.855	.821			
IMD	-.002	.004	-.038 ^{ns}		
Traffic Hazards	.333	.192	.118 ^{ns}		
Infrastructure & safety for walking	.214	.186	.083 ^{ns}		
Street Connectivity	-.018	.093	-.013 ^{ns}		
Aesthetics	.000	.123	.000 ^{ns}		

*** < .05 **<.01 ***<.001**

4.4 Phase One summary

The main aim of the secondary analysis was to investigate whether physical activity was associated with deprivation and environmental characteristics in a Liverpool sample population. The proceeding section will discuss the findings for the descriptive and statistical analysis.

4.4.1. Respondent physical activity levels

The respondent self-reported physical activity participation is concurrent with the previous survey findings (NHS, 2009^a; Sport England 2009). Overall 30 per cent of respondents met the minimum recommendations of 30 minutes of moderate to vigorous physical activity on five or more days of the week (CMO, 2010), which equated to 35 per cent of men and 28 per cent of women. While nationally the *Health Survey for England* (NHS, 2009^a) reported higher average physical activity levels (39% and 29% of men and women respectively), lower than average levels for Liverpool are consistent with the Active People's Survey (Sport England, 2009).

4.4.2. Perceived access to local parks

In relation to respondent perceptions of access to local parks, findings showed that compared to other recreational facilities, access to parks produced the highest walkability scores, with the majority of participants reporting a ten minute walk or less to their local park. Furthermore 82% of respondents agreed that the park in their local area was easily accessible, and that access was not an issue for them.

Studies outlined in the literature review suggest a positive correlation between park access, physical activity participation and overall health (Wendel-Vos et al., 2004; Giles-Corti et al., 2005^a; Zlot & Schmid, 2005; Maas et al., 2009). Findings from this study suggest that Liverpool has the local park resources that have the potential to provide health benefits to residents. Previous applications of the NEWS found that access to parks correlated with higher levels of physical activity and low body mass index (Giles-Corti and Donovan, 2002; Saelens et al., 2003^b). While this study found accessibility to local parks was good, with a high walkability score, we would have expected that respondent physical activity

participation would be higher than what was reported. As Liverpool has some of the lowest physical activity participation rates within England (NHS, 2009; Sport England 2009) findings suggest a paradox between access to parks and inactivity in this population. A review by Kaczynski and Henderson (2007) reported that although some studies found positive relationships between park access and physical activity, a significant number also found low or no associations. They concluded that because of the ubiquity of park environments, and their potential to health there is merit for further exploration. The present study supports this need for more effective use of parks to ensure local neighbourhoods gain the benefits of living within close proximity to this resource.

This result is consistent with findings from Cutts and colleagues (2009) who argue that beyond access to parks, more attention needs to be paid to social concerns like personal risk and the quality of park spaces. They conclude that although the structure of cities provided more opportunities for physical activity participation, cultural or social constraints might prevent residents who are more at risk of health inequalities from accessing local parks for bio-psychosocial benefits (Cutts et al., 2009). Although parks in Liverpool seem accessible, other cultural and social issues (i.e. safety and deprivation) may be preventing use by local residents, which then decreases physical activity opportunities within these facilities (Booth et al., 2005).

4.4.3. Physical activity, deprivation and environmental characteristics

Findings from both of the physical activity models showed that IMD and environmental subscales were not predictors of the self-reported physical activity measures. Both physical activity models had low predictive powers, suggesting other independent factors influence physical activity participation beyond those included within the analyses. These results are consistent with those of Saelens and colleagues (2003^b), who found no significant difference between environmental determinants and self-reported physical activity related to walking and physical activity for leisure, and vigorous exercise. However they did find significant associations with walking for transport (Saelens et al., 2003^b).

These findings suggest that either the physical activity measures incorporated in the LNNS may not have been appropriate (i.e. sensitive enough) for the ANEWS tool, or that the

environmental measures were not sensitive enough to an urban city like Liverpool (Brownson et al., 2009). This suggests that the ANEWS may not be the most appropriate survey in the investigation of the how the environment can effect overall physical activity at a neighbourhood level, especially in relation to park use (Brownson et al., 2009). For example, a review by Lopez and Hynes (2006), reported a paradox in findings between suburbs and inner cities, where environmental features that influenced physical activity and obesity in suburbs did not have the same effect in inner cities. They argued that despite cities having neighbourhoods that encouraged physical activity through design and facilities, obesity and inactivity was more prevalent. Lopez and Hynes concluded that other social disparities (e.g. socio economic status) may play a greater role in health inequalities and therefore a context specific approach may more effective when examining the influence of the urban environment on physical activity behaviours.

In the current study sample the regression models for physical activity found no environmental predictors. In addition to the previous arguments, it could also be contended that identifiable changes to the social and physical environment need to be made to encourage a culture change towards active travel and use of the local environment for physical activity purposes (Sallis et al., 1998; Saelens et al., 2003^b). This argument suggests that without changes to the built environment and related policy support, it is difficult to review the full scope of the effect of the urban city on physical activity and health. In addition to more contextual methods of data collection to assist with data interpretation, these results emphasize the need for larger sample sizes to ensure between variable calculations can be applied (Cochrane et al., 2009; Gidlow et al., 2010).

Overall the secondary data analysis utilising ANEWS failed to fully account for attitudes, cultural beliefs and social factors that can influence physical activity. Measures that investigate both the environment and cultural and social characteristics unique to urban cities may provide a more accurate reflection of whether IMD and the environment subscale measures can predict physical activity participation within local neighbourhoods (Lopez & Hynes, 2006). The ANEWS may not have been the most appropriate measure, especially when considering whether physical activity in local neighbourhoods also influences use of parks and open green spaces (Hillsdon et al., 2006). A review carried out by Brownson and colleagues (2009) examined three categories of built environment data;

namely (1) perceived measures (as measured by the ANEWs); (2) observational methods; and (3) archival data sets adopting geographic measures such as GIS. They concluded that although progress has been made in environmental measurement more development is needed, with particular reference to population groups. The LNSS failed to fully account for attitudes, cultural beliefs and social factors that can influence physical activity.

Measures that investigate both the environment and cultural and social characteristics unique to urban cities may provide a more accurate reflection of whether IMD and the environment subscale measures can predict physical activity participation within local neighbourhoods (Lopez & Hynes, 2006). This would be more consistent with the premise of an ecological model that suggests there are a plethora of factors (i.e., social, biological, environmental etc.) that can influence participation (Humpel et al., 2002).

4.4 Phase One Overview

Despite the limitations with the ANEWS, the secondary analysis and scoping exercise of national and local data for health inequalities and physical activity participation has contributed to data surrounding perceptions of local environments in relation to access to local parks, population demographics and in particular deprivation. The reconnaissance phase has shown that:

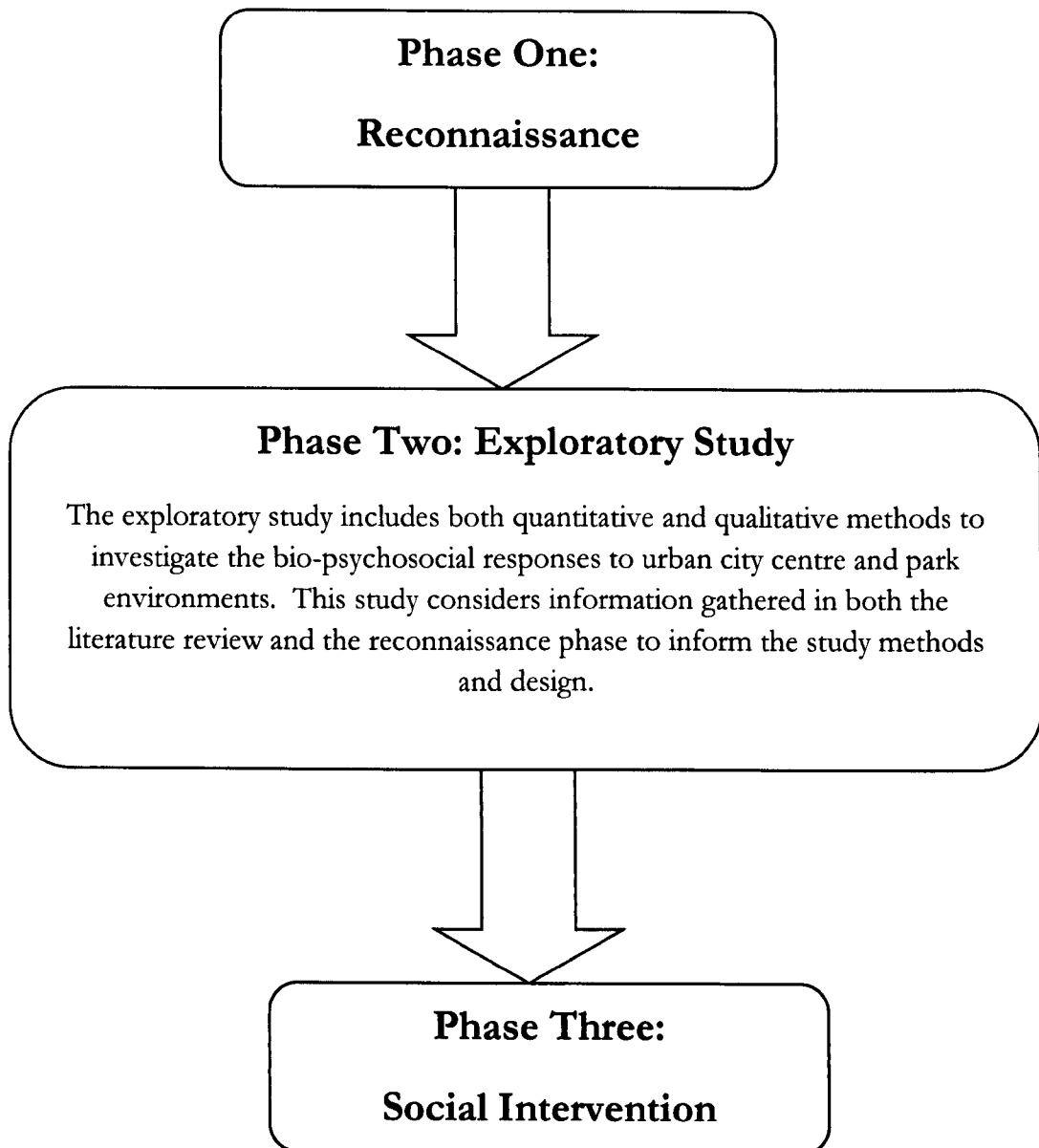
1. Liverpool is one of the most socially deprived areas within England, with substantial health inequalities in comparison to the rest of the nation.
2. Low physical activity participation recorded in national surveys and among the LNSS population sample suggests that access and actual use of local neighbourhoods is a complex phenomenon.
3. LNSS respondents all live within walking distances of parks and open green spaces across Liverpool.
4. Secondary analysis found that IMD and the environmental subscales (Infrastructure and safety for walking, Traffic hazards, Aesthetics and Street connectivity) were not predictors of physical activity participation within the sample population.

The incorporation of a qualitative component to phase 2 will assist in investigating the 'how' and 'why' questions that are important at this point of the research to establish use of neighbourhood parks and urban green spaces and learn lessons as to how this could entice more people to use these environments for physical activity purposes.

Chapter Five

Exploratory Study

“It is paradoxically in the most urban of settings that one becomes powerfully aware of the enduring beauty and utility of nature. It is the re-shaping of nature that has made civilised urban life possible.”



5.1. Introduction

This chapter describes the process and outcomes of an exploratory study investigating the bio-psychosocial benefits and drawbacks of accessing urban park and urban city environments. The study design and methodology was adopted to capture biological markers associated with health and psychosocial experiences of accessing urban park and urban city environments.

The secondary analysis included in the reconnaissance phase indicated that social elements of neighbourhoods (e.g. deprivation and traffic hazards) and physical attributes (e.g. aesthetics and street connectivity) had a minimal effect on physical activity participation among the sample population. Contrary to these findings previous research has found associations between environmental attributes and physical activity participation (e.g. Leslie et al, 2004). One probable suggestion for the difference in these findings is that the survey may not have been appropriate or sensitive enough to detect possible associations that may be present for the Liverpool population. Moreover, as the ANEWS tool fails to provide contextual information as to why the attributes may not have been relevant for this population, it is difficult to draw full conclusions. Therefore, the exploratory phase is designed to investigate the bio-psychosocial benefits and drawbacks of two environments that have been identified to encourage physical activity participation: urban parks and urban city centres. The methods incorporated into the exploratory phase were utilised to provide the opportunity to investigate social and physical attributes of neighbourhood and city design and the theories surrounding (1) the bio-psychosocial benefits of natural features and whether access and incorporation can improve health and wellbeing opportunities for Liverpool residents and (2) whether the urban city centre has an adverse effect on participation and bio-psychosocial wellbeing.

5.1.1. The impact of urban public design on physical activity

Public space has become a vital part of how we exist and perform physical activity within urban cities. The design of the urban environment is inextricably linked with physical activity opportunities and individual health (Hartig et al, 2003). Increasingly research is showing that access to facilities and aesthetic attributes are significantly related to physical activity participation (Humpel et al., 2002; Giles-corti et al., 2005). However public spaces

are increasingly designed for convenience, with less attention paid to spaces for physical activity and aesthetic attributes that can provide health benefits (CABE, 2006a). As Schmid and colleagues (1995) argue:

“It is unreasonable to expect large proportions of the population to make individual behaviour changes that are discouraged by the environment and existing social norms.”
(p1207).

This statement suggests that people will adapt to their local environments and social norms, whether this is beneficial for health and wellbeing or not. It is therefore important to provide public spaces and encourage behaviour that will promote bio-psychosocial health and wellbeing (Frumpkin, 2003).

5.1.2. The bio-psychosocial benefits of accessing nature

As detailed in the literature review, research has demonstrated associations between bio-psychosocial health outcomes and access to natural environments, including urban parks and open green spaces (e.g. Ulrich et al, 1991; Hartig, 1993; Kaplan, 2001; Frumpkin, 2003). Reported health outcomes include physiological benefits of decreased blood pressure, improved fitness and psychological benefits of improved attentional capacity and stress reduction (Kaplan & Kaplan, 1989; Bodin & Hartig, 2003; Krenichyn, 2006; Pretty et al, 2005). The health benefits experienced from contact with nature have been linked to increased work productivity and quicker patient recovery after illness or operations (Ulrich, 1984; Kaplan, 1995; Cimprich & Ronis, 2003; Diette et al, 2003). In the workplace, reduced stress levels and a higher work performance have been reported when natural views are present within offices (Kaplan & Kaplan, 1995). Moreover, research with children diagnosed with Attention Deficient Disorder were found to produce significantly higher attention levels over prolonged periods of time after exposure to green spaces (Faber Taylor et al, 2001).

This prediction is based upon the principles of the biophilia hypothesis (Kelert & Wilson, 1993), which postulates that humans have an innate affinity with nature, which includes a need to connect with nature (Wilson, 1984). The connection expects to increase general

well-being and our understanding of nature that cannot be achieved in a city landscape (Frumpkin, 2003). The two dominant theories based on biophilia are SRT (Ulrich, 1983) and ART (Kaplan & Kaplan, 1989). Both look beyond the surface psychological benefits to underpinning theories as to why mental, and in some instances physical, benefits are apparent when humans are in connection with nature. The current study considers these theories and the use of natural environments as a place for activity and a preference to restorative environments in relation to stress reduction and the four elements proposed by ART.

With more people opting to live in expanding urban environments, the amount of people gaining exposure to nature is decreasing; with less exposure there is an increased risk of non-communicable disease and mental disorder (Pretty et al., 2004; Galea & Vlahov, 2005; Louv, 2005). A deeper understanding of the need for nearby nature (e.g., urban parks) within city environments would support the preservation and development of natural features for health purposes (Kaplan & Austin, 2004).

5.1.3. The present study

The majority of studies researching the bio-psychosocial benefits of physical activity within built and natural environments have used empirical methods that do not explore the individual meaning that can be gained from holistic approaches (Pinder et al., 2009). For instance, Pinder and colleagues (2009) found that it is difficult to apply a cause and effect model to health and the environment due to the different meanings and experiences people hold for these spaces. They conclude that much of the feelings experienced whilst in natural environments are in the '*minds eye*' of the individual. This more subjective sense of well-being is more difficult to quantify, therefore methods that can divulge experiences and knowledge need to be explored. It would therefore seem reasonable to explore the meaning of local places to people and examine how and why parks and urban green spaces might promote individual bio-psychosocial wellbeing and physical activity participation.

While research that compares the benefit of natural environments to city environments is growing, minimal attention has been focused on gaining an in-depth understanding about the psychosocial issues, experiences and any potential needs of people who interact with

park and city environments. Most studies have utilised physiological testing and psychometric measurements to demonstrate the bio-psycho benefit of green activity (e.g. Pretty et al., 2004; 2005). Whilst quantitative surveys are easily accessible, can assess psychosocial domains and are usually time efficient, they are unable to elucidate underlying meanings and real life contexts that can guide future hypothesizing (Giacomini & Cook, 2000; Munroe-Chandler, 2005). Instead qualitative methods allow participants to define what they consider to be important on their own terms.

The present study adopts a multi-method approach, combining qualitative and quantitative data collection and analysis. The qualitative method allows the researcher to better understand and capture the participants' subjective experiences, perception and interpretation of any benefits and values accrued, and drawbacks of undertaking physical activity within distinct environments. These considerations need to be taken into account when devising and delivering interventions that have the potential to influence population bio-psychosocial health and wellbeing.

5.1.4. Phase 2 aims and objectives

The present study is designed to investigate Aim's 2, 3 and objective 2, which include:

Aim 2: Ascertain whether bio-psychosocial responses are improved within an urban park compared to an urban city environment.

Aim 3: Develop an understanding of an individual's psychological and social experience of accessing urban parks and green spaces.

Objective 2: Complete an exploratory phase of investigation to ascertain:

- i. Biological effects of viewing Liverpool park scenes as opposed to city centre scenes (quantitative).
- ii. Psychological and social responses to urban parks and urban cities (qualitative).

The aims and objectives take into consideration the theoretical stances of ART (Kaplan & Kaplan, 1989), SRT (Ulrich, 1984), and the concept of Biophilia (Wilson, 1984). The

theories contributed to the following research questions:

1. Are there bio-psychosocial benefits of parks and natural features?
2. Does access to parks improve bio-psychosocial health and wellbeing?
3. Does the urban city centre have an adverse effect on participation and bio-psychosocial wellbeing?

5.2 Method

Figure 5.1 depicts the multi-method approach adopted for the study. The quantitative data collection (Phase A) aimed to collate biological responses of heart rate (HR) and blood pressure (BP). Both HR and BP have been found to increase during physical activity (Berne & Levy, 2000). Based on SRT and ART (Ulrich, 1984; Kaplan & Kaplan, 1989) and previous research outcomes (e.g. Pretty et al, 2005) it is expected an urban city environment will produce an increased effect on each measure due to the additional stress from the built and technological effects. The qualitative interview (Phase B) was incorporated to examine the participant experiences, feelings and meanings associated with urban park and urban city environments. The qualitative phase will add to the subject area by focusing on understanding the relationship between psychosocial wellbeing and the built and natural environment.

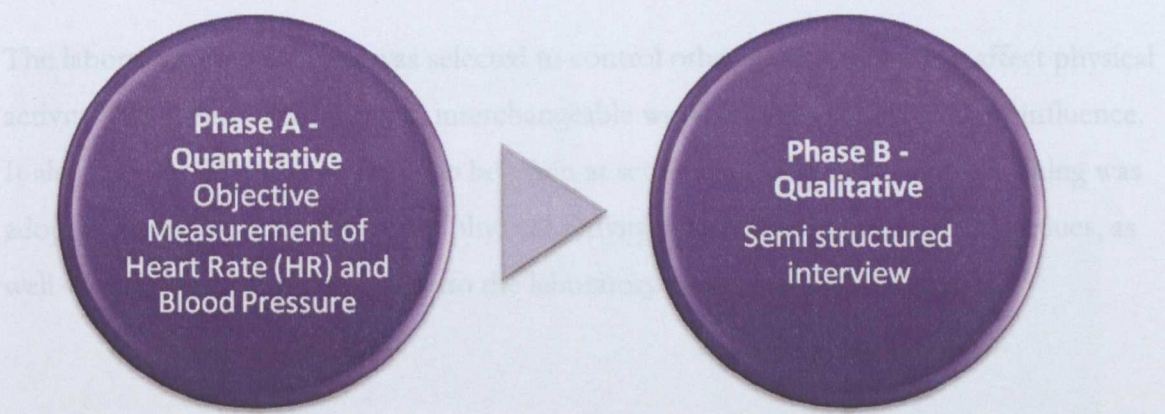


Figure 5.1: Laboratory protocol for participant data collection

5.2.1. Participants, sampling and setting

Eighteen participants (16 female, 2 male) aged between 38 – 72 years old (mean age of 56 ± 11(SD)) participated in this study. The aim and purpose of the study, together with pre-existing knowledge of the subject matter influenced the sampling method adopted. Whilst random sampling may have avoided bias, it was important to gain the participants’ perspectives and experiences of both environments, therefore purposeful sampling was adopted. Purposeful sampling can use criteria to ensure the inclusion of individuals who have characteristics relevant to the study (e.g., an interest or active participation in activities within urban parks) and the need to optimise the diversity of the group ensuring a full

range of features (e.g., different ages and participants from different IMD populations living in Liverpool) (Patton, 2002). Participants were members of local walking groups (Walk for Health and Ramblers) who already participated in physical activity within local Liverpool city parks and open green spaces. Understanding became an important starting point by looking at those people who already perform the desired health behaviour. The selected sample ensured that we captured people who were likely to engage regularly with both the city and the local parks. Participants were recruited via leaflets that outlined the study, distributed by walk leaders. To encourage participants to engage in the study, the researcher invested a vast amount of time attending walking groups to build a rapport with members and answer any questions regarding the laboratory visits and experimental design. Participants who were interested in the study, but did not want to attend cited the time commitment required as the main barrier. All testing took place at the School of Sport and Exercise Sciences, Liverpool John Moores University (LJMU).

The laboratory environment was selected to control other variables that can affect physical activity within each environment, interchangeable weather being the most likely influence. It also allowed BP measurements to be taken at set times during the testing. Walking was adopted as the most likely form of physical activity to take place in each of the venues, as well as being easily incorporated into the laboratory space using a treadmill.

5.2.2. Scene video production

Scene videos were recorded in Liverpool for the park and city centre using a hand held camera (Panasonic NVGS 17). Scenes were recorded at the same time of day on two consecutive days in April when trees were in full blossom (see figure 5.2). Both days were sunny, with walks starting at 2pm. A video recording in excess of 20 minutes was produced for each environment. As real time scene footage was used, it was not possible to devoid the city scene of all greenery, or the park of objects like motorised vehicles.

The urban park video was recorded in Sefton Park, a large public park located in the south of Liverpool. The route was filmed largely on the main walkway that passed through and near to the perimeter of the park where access to record was easier. Scenes generally showed the main pathway (approximately 4 meters wide) with trees, shrubs and green field

areas. Additionally there were people walking around the route with bikes passing intermittently. Background sounds include birds, wind, people talking and noise from park improvement work (1min 20 seconds).

The urban city video was recorded in the business district area of Liverpool City Centre. The scenes feature paths (approximately 4 feet wide) situated directly next to either side streets or main roads. Residences featured included 2 storey houses and 5+ storey apartment blocks. Other features included industrial warehouses, a dual carriageway and single one-way roads. Traffic is present in the majority of the scene video (either parked or moving). Some greenery is present with sporadically placed trees and hedged areas. Background sounds included traffic, pedestrians talking and walking, wind moving across the microphone (minor) and machinery from both road and building works.

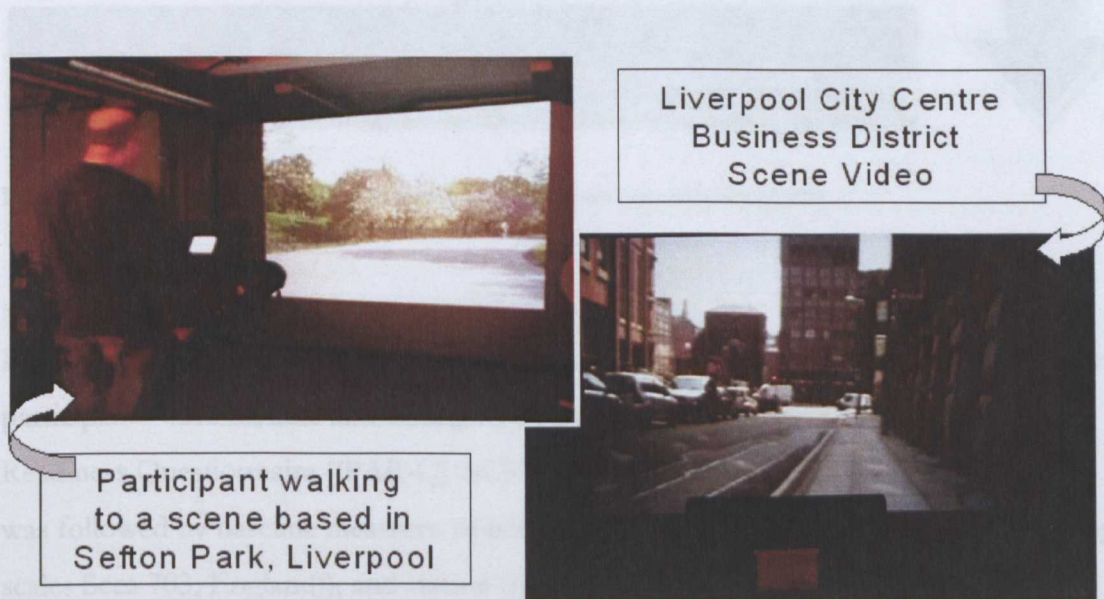


Figure 5.2 Scene video views for park and city settings

5.2.3. Phase A design & procedure

Prior to data collection ethical consent was sought and granted by Liverpool John Moores University ethics board. Participant information sheets and consent forms were distributed to participants prior to testing. Participants were randomly assigned to either the urban city or park scene for the first laboratory visit. Phase A of testing involved intermittent diastolic, systolic and mean arterial BP readings collected pre-test, post exercise and post

rest (see figure 5.3), with HR measures recorded continuously at 5 second intervals. The treadmill was positioned 3 meters from the projector screen, with the projector (Epsom) placed a further 4 meters behind the screen. A speaker projecting scene sound recordings was positioned behind the projector screen. The laboratory space had no windows, with artificial light generated from the projection itself and a lamp positioned behind the participants to aid safety procedures.

Following the 20 minute walking period, the participants was stopped and the treadmill was reduced to a speed of 0.5 m/s. Participants were then asked to assume the

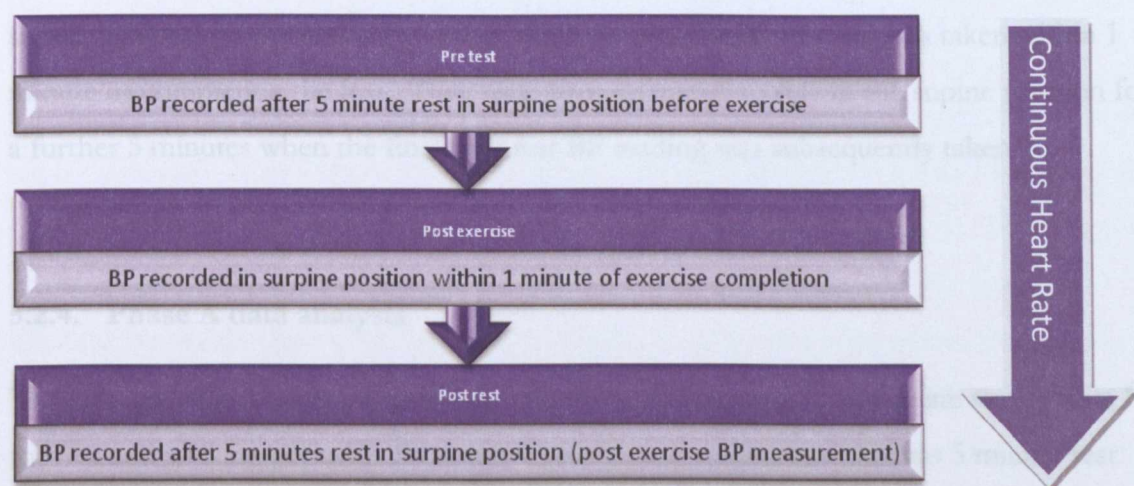


Figure 5.3 Time periods for blood pressure and heart rate measurement

Participants were required to attend the laboratories on two separate occasions. To ensure participants were fit, able and willing to participate they completed a Physical Activity Readiness Questionnaire ((PAR-Q) ACSM, 2000) prior to taking part in the research. This was followed by baseline measures of body mass (to the nearest 0.1kg (Digital weighing scales Seca 703, England)), and stature (to the nearest 0.1cm (Stadiometer; Seca 214, England)). From these measures body mass index (BMI) was calculated: body mass (kg) divided by height squared (m^2). Participants were then fitted with a heart rate monitor (Polar Team System, Polar Electro OY, Finland) and asked to lie in a supine position on a crash mat for a period of 5 minutes. All BP measurements were taken in the same supine position. After the 5 minutes pre-rest period, systolic and diastolic BP readings were recorded (Digital Blood Pressure Monitor; DINAMAP PRO Series 100-400V2, America). Participants were then asked to complete a minimum of 5 minutes familiarisation on the treadmill (Woodway, Germany) at a steady walking pace. After this period the speed of the treadmill was increased until participants felt they had achieved a moderate level of walking that was relative to their level of fitness (a level where they felt slightly warm and

breathless). This speed was maintained for the testing duration, and recorded for the subsequent testing session. Once a steady speed was achieved the scene video was played for a 20 minute period of exercise. During this time participants were instructed to concentrate on the moving image projection.

Following the 20 minute testing period, the projection was stopped and the treadmill was reduced to a standstill within 15 seconds. Participants were then asked to assume the supine position on the crash mat where the post exercise BP reading was taken within 1 minute of completing the test. They were then informed to stay in the supine position for a further 5 minutes when the final post rest BP reading was subsequently taken.

5.2.4. Phase A data analysis

The start and finish times of each stage of testing was recorded to calculate steady state HR for rest and walking periods. To certify a steady state measure of the two 5 minute rest periods, an average heart rate from the last 2 minutes of data was analysed to produce the pre-rest and post-rest scores. To ensure that steady state was attained and maintained during the 20 minutes of walking, exercise heart rate measure was calculated from an average of the middle 14 minutes of data (excluding the first four and last two minutes of walking (Harrel et al., 2005)). In addition to systolic and diastolic blood pressure, mean arterial pressure (MAP) was also calculated as a characteristic of the cardiac cycle. MAP was calculated as:

$$\text{Diastolic pressure} + 0.33(\text{Systolic} - \text{Diastolic}).$$

A two-way repeated measure analysis of variance (ANOVA) was conducted to compare means between each data collection time within each condition (urban city and urban park) for HR, BP and MAP. On a case by case basis, where an observed difference between HR, BP and MAP was noted between two conditions (at any data collection point), a paired samples t-test was calculated to examine the differences. The mean difference for all tests is reported with a 90% confidence interval (CI). SPSS v14 (SPSS Inc, Chicago, IL, USA) was used for statistical analysis with statistical significance set at $P \leq 0.05$.

5.2.5. Phase B design and procedure

Phase B of data collection incorporated a semi structured interview conducted directly after Phase A. Gauging participant perspectives of the urban park and city environments was considered important to try to identify and understand from a participant perspective the factors which influences use and feelings experienced. The qualitative aspect of the study was designed to interview participants once they had partaken in phase A of the study for each environment.

Interview questions were designed to explore all study aims by engaging participants in an open discussion about their views and feelings associated to each scene and to develop an understanding as to why they access each environment (see appendix eight). The interview questions were underpinned by current literature surrounding access of the built and natural environment and theories surrounding the benefits of natural environments (as detailed in the literature review). The interviewer encouraged participants to talk about issues pertinent to the research question by asking open-ended questions. The interview schedule remained flexible so the interviewer could enable participants to answer the 'what', 'why' and 'how' questions (Spencer et al., 2003). During the interview, probes were used to ask participants for more details, resolve any ambiguities in the narrative, and reassure participants that the interviewer is paying attention to what is being said (Rubin & Rubin, 1995).

Visit two repeated the testing protocol with the second scene. Although participants were given the freedom to explain and story experiences beyond the realm of the questions outlined, the researcher recognizes the interview schedule reflects previous knowledge in the domain of activity in urban park and city environments and therefore prevents a true inductive approach (Krane et al., 1997). As advocated by Weiss (1994), a pilot test and interview was carried out prior to study data collection with a member of faculty staff who fit the purposeful sample criteria. As a result more questions were included in the access and affiliation section of the interview to divulge more data related to the meaning of the urban park and urban city to participants.

5.2.6. Phase B data analysis

Interviews were listened to and transcribed verbatim by the researcher. As interviews contained similar materials (aligned largely to SRT and ART theories and previous knowledge related to interview questions) content analysis was adopted. The analysis began deductively followed by a more inductive approach to code the data and identify themes (Morgan, 1993; Ryan & Bernard, 2003). Although it has been argued content analysis has become a method of quantifying qualitative data with an interest only in the language used (Laffey & Weldes, 2004), this study adopted an approach of identifying narratives within the stories that shape identities and norms among the participants experiences (Tierney, 2002). Therefore the approach considers the context of transcripts within its social grounds, based on existing knowledge (Mayring, 2000).

The data was coded and categorised into themes (Weber, 1990). Examples of feelings and perceptions were identified through the transcripts and used to examine the two environments and individual differences. Quotations and stories emerging from the themes were noted. Creative writing was incorporated as a way of presenting the data to the reader in a way that would ease understanding and interest (Richardson 2000; Tierney, 2002; Colyar, 2004). User profiles were created to represent typical participant stories for each of the themes. User profiles were designed in the study as a creative non-fiction tool that could portray personal experiences and provide a human picture of the study participants (Krane et al, 1997; Richardson, 2000; Tierney, 2002). Fictitious user profiles were created as they provided the opportunity to amalgamate a number of participant views and create a type of person that is representative of this population. This enabled the researcher to provide a richer illustration of experiences from the qualitative aspect of the research that was pertinent to the thesis aims and aid the readers understanding of study themes (Krane et al, 1997; Tierney, 2002). In this instance the incorporation of user profiles gave the opportunity to group participant attributes, values and experiences in a creative text that is representative of participant events and feelings. Participant quotations have been used directly from interview transcripts and included within user profiles to offer an illustration of key themes to the reader.

The resulting analysis was then read and re-read by the researcher and a senior colleague as a method of triangulation to check coherence and ensure familiarity of the text and

participants involved in the research (see figure 5.4). Final themes and user profiles were then discussed with supervisors to ensure coherence and representation of the data. This process of triangulation provided an opportunity to discuss the thought process of the analysis and discuss resultant findings (Spencer et al., 2003).

Figure 5.4 Step by step guide to Interpretive Content Analysis (adapted from Mayring, 2000)

5.3. Results and findings

The results section is organised according to the two phases of research. Phase A presents the physiological findings of the study. A summary of the findings from Phase A are then provided before presentation and discussion of the findings from participant interviews (Phase B). An overview of the entire Study is then presented in section 5.6.

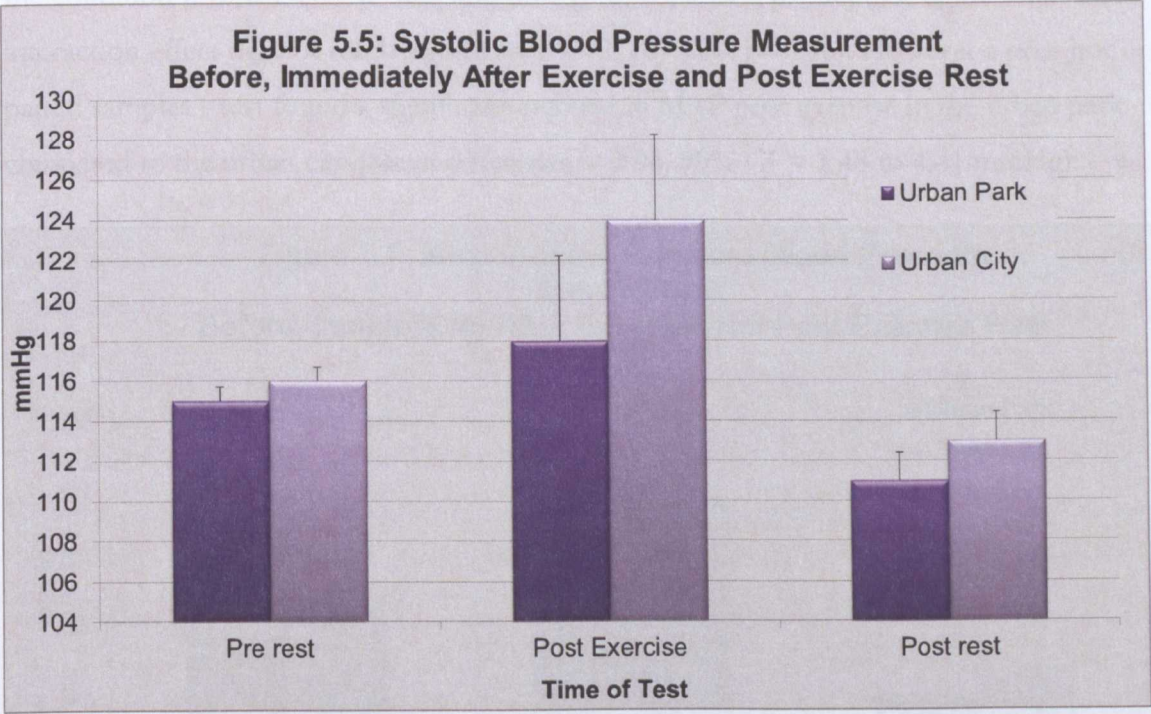
5.3.1. Phase A: Heart rate and blood pressure

Participant characteristics and speed of walking, (according to age group), are reported in Table 5.1. Self-selected walking speeds across the sample ranged from 0.77 – 1.83m/s (Mean 1.23 ± 0.32 SD). The Body Mass Index (BMI) shows that the majority of participants either fall into ‘normal’ category (18.5 – 24.9) or are overweight (25 – 29.9), although participants categorised as obese (BMI 30 or greater) were present (see also table 5.2).

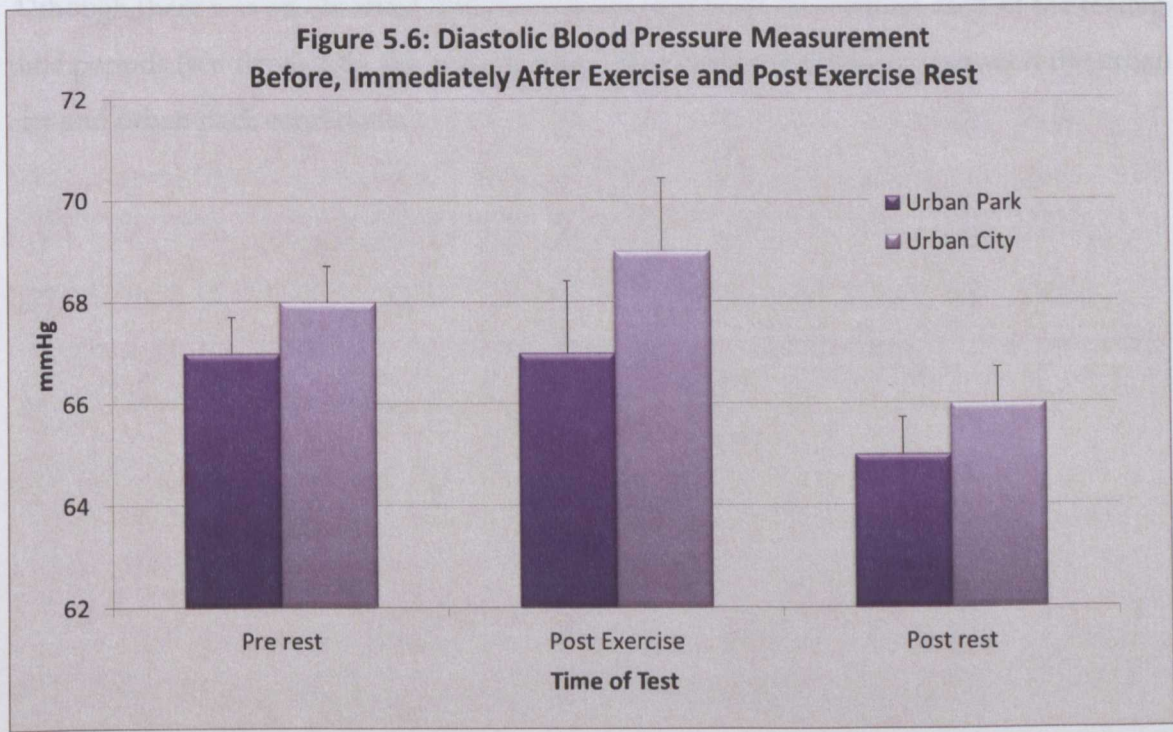
Table 5.1: Physical characteristics of participants and speed of walking by age group

Age group	BMI (kg/m2)	Treadmill Speed (M/S)
>45yr	23.22 ± 1.14	1.34 ± 0.27
46 – 54yr	22.89 ± 1.56	1.06 ± 0.08
56 – 65yr	27.84 ± 3.21	1.26 ± 0.37
<65yr	26.76 ± 5.26	1.20 ± 0.42

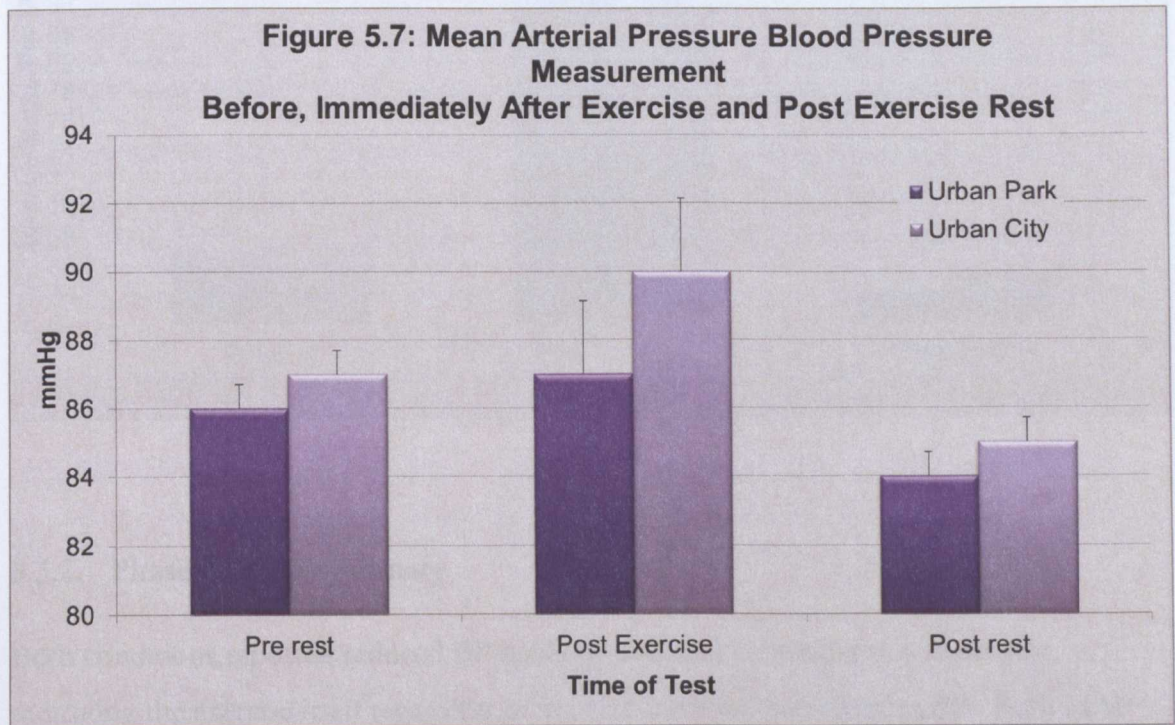
A two-way repeated measures ANOVA found a significant mean effect of systolic BP for both the condition [$F(2, 18)=8.61, p=.00$] and time of blood pressure test [$F(2, 18)= 35.62, p=.00$] (see figure 5.5), with a statistically significant interaction effect for condition and time [$F(2, 16) = 3.87, p=.31$]. Post hoc analysis showed a significant increase in systolic BP in the urban city in comparison to the urban park condition post exercise (Mean difference = 5.94, 90% CI = 3.56 to 8.33 mmHg). The BP readings taken pre rest and post rest did not differ significantly between the urban park and city conditions.



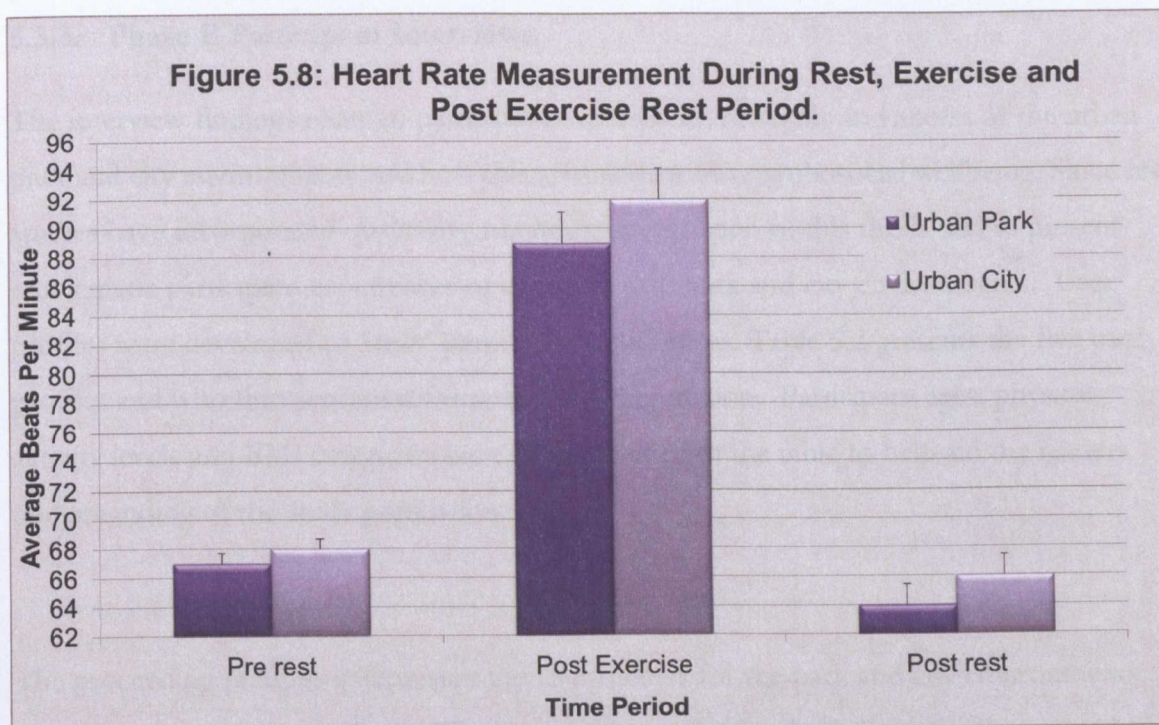
A two-way repeated measure ANOVA found a significant mean effect for diastolic blood pressure between each test time point [$F(2, 16)=4.71, p=.02$], although the main effect for condition and the interaction effect for condition and time did not reach statistical significance (see figure 5.6).



A two-way repeated measures ANOVA found a significant mean effect of MAP for both the condition [$F(2,18) 6.83, p=.02$] and time [$F(2, 18) 23.77, p=.00$] (see figure 5.7). The interaction effect did not reach significance [$F(2, 18) 3.00, p=0.06$]. However a post hoc paired samples t-test found a significant increase in MAP post exercise in the urban park compared to the urban city (Mean difference = 2.94, 90% CI = 1.48 to 4.41 mmHg).



Although there was an observed difference in average heart rates within each of the testing time periods (see figure 5.8), the analysis found no significant difference between the urban city and urban park conditions.



5.3.2. Phase A result summary

Both conditions reported reduced BP readings post rest in comparison to pre rest, indicating the exercise itself regardless of viewed scene had an effect on BP. Both MAP and systolic BP reduction was significantly lower post rest ($p < \text{value}$) for the park scene in comparison to the urban city scene. These findings are comparable with previous studies where a significant ‘green effect’ was reported immediately after physical activity whilst watching a natural scene in comparison to a city landscape (Pretty et al., 2005). Although no significant differences were found in relation to diastolic BP, other research (Maddison, 2008) suggests that this could be a physiological response that only occurs after prolonged periods of walking beyond the 20 minutes used within this study. Nevertheless, findings from phase A of this study suggests that visual and sound stimulus from the physical environment can have a physiological effect on individuals. Interview findings carried out in Phase B provide some context as to why there is a difference in particular to BP responses to the park and city environments.

5.3.3. Phase B Participant Interviews

The interview findings relate to participant experiences, thoughts and access of the urban park and city environments and how this affects their bio-psychosocial wellbeing. Since few studies have incorporated qualitative methods, an intention of this thesis was to present emblematic participant experiences of engaging with park and city environments. User profiles were developed to 'story' participant experiences. Table 5.2 presents the five user profiles and who they represent from the study population. Participant ages, physical activity levels and BMI categories have been included in the table to help aid the readers understanding of the study population.

The proceeding sections will present the four themes for the park and city environments that relate to interview findings. The four themes and related subthemes are presented in figure 5.10. Theme user profiles are used to illustrate findings for each environment. These are based on the created user profile characters to help story participant experiences and beliefs to the reader.

Verbatim quotes are integrated into the theme profiles and related discussion to offer an illustration of theme dimensions (Spencer et al., 2003). The findings were reported alongside the discussion to aid coherence and ensure results were not repeated across themes (Smith, 1997). The discussion will predominantly focus on emerging sub themes that are pertinent to the research question.

Table 5.2: Study participants and their related user character profiles.

User character profile	Participant ID	Age	BMI category
<u>Flo</u> Representative of participants who are retired grandmothers and do not regularly see their extended family. They spend a considerable amount of time in parks and open green spaces across Liverpool.	#1	56	Overweight
	#7	69	Overweight
	#9	60	Overweight
	#11	72	Normal
	#14	59	Overweight
<u>Sally</u> Representative of participants who are mothers with young and adolescent children, who work predominantly in the city centre.	#2	43	Overweight
	#3	44	Normal
	#5	50	Normal
	#17	38	Normal
<u>Bev</u> Representative of female participants who reside in the more affluent urban areas of Liverpool, close to one of the main parks (i.e. Sefton or Calderstones Park). They are all grandmothers and have regular visits from extended family.	#4	69	Overweight
	#6	67	Normal
	#8	63	Normal
	#12	54	Normal
	#16	52	Normal
<u>Claire</u> Representative of single middle aged female participants who have worked full-time in Liverpool for over 15 years and do not have children.	#13	41	Normal
	#18	43	Normal
<u>Derek</u> Representative of male participants who are retired and live in the more affluent areas of Liverpool and close to one of the main parks.	#10	66	Obese
	# 15	64	Obese

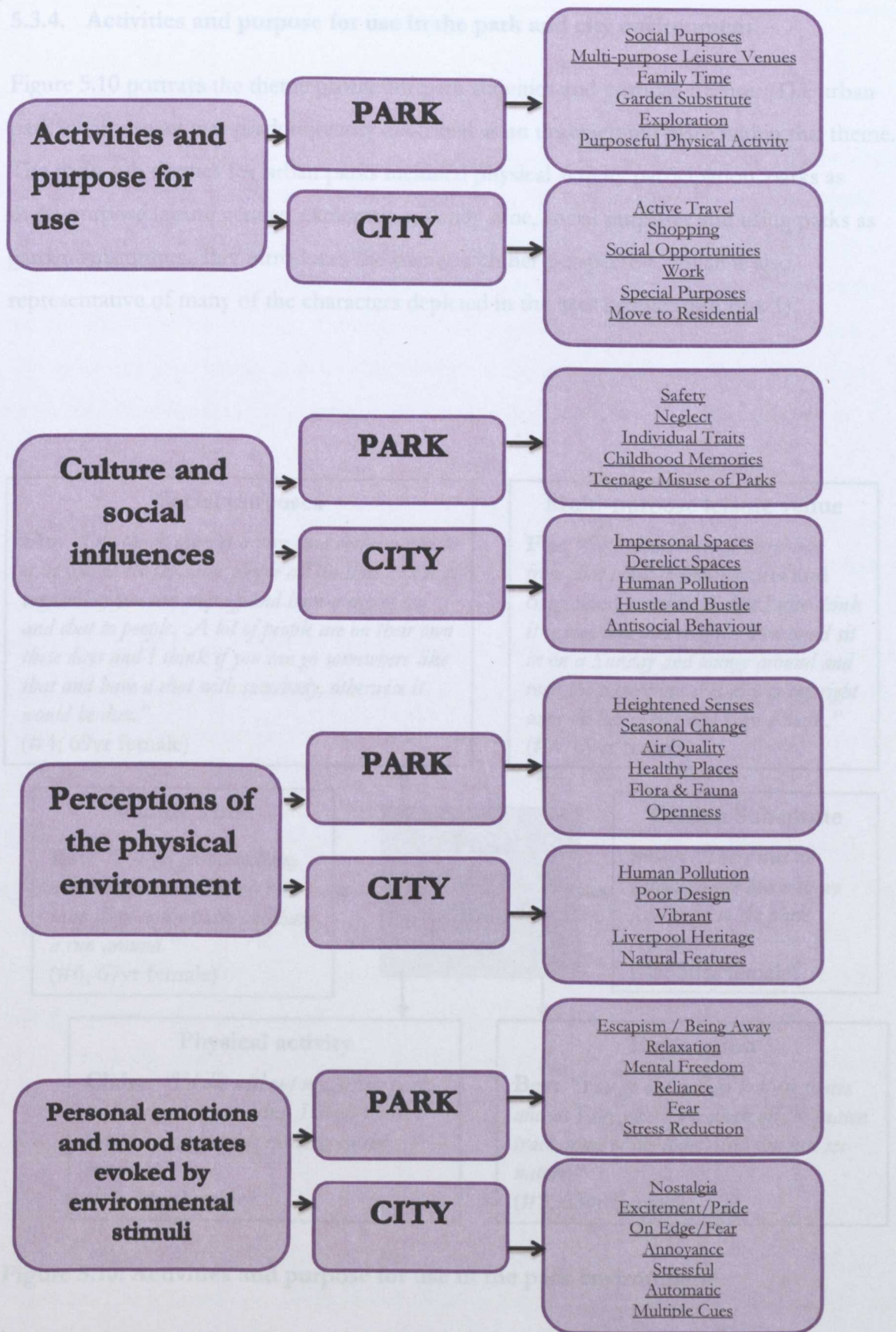


Figure 5.9: Four study themes and related sub themes for both the park and city environments.

5.3.4. Activities and purpose for use in the park and city environment

Figure 5.10 portrays the theme profile for park activities and purpose for use. The urban park environment was predominantly described as an unstructured place within this theme. The main sub-themes for urban parks included physical activity participation, parks as multi-purpose leisure venues, exploration, family time, social purposes and using parks as garden substitutes. Bev introduces the theme with her perspective, which is also representative of many of the characters depicted in the user profiles (see Box 1).

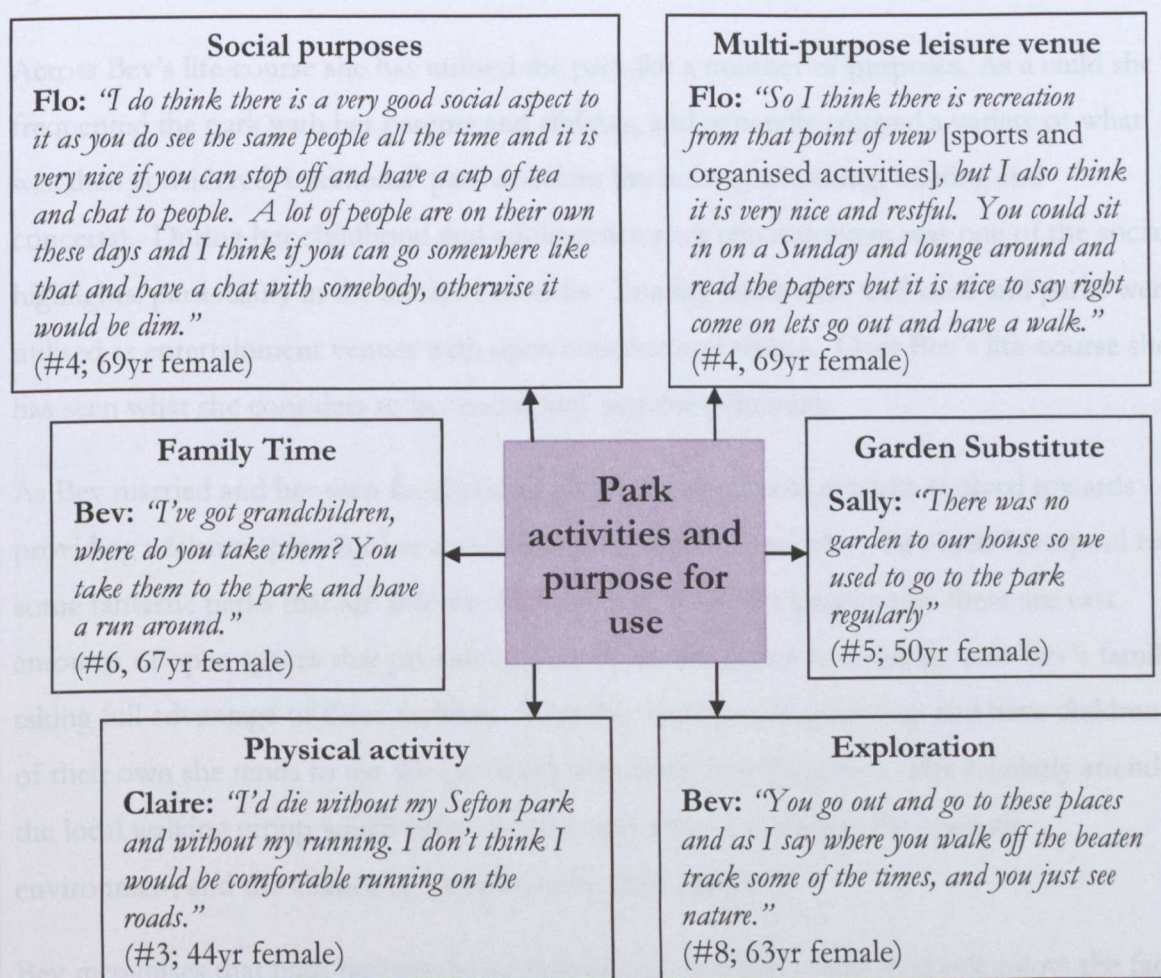


Figure 5.10: Activities and purpose for use in the park environment

Box 1:

User Profile 1: Activities and purpose for use in the park environment

'Bev' is a 62 year old retired grandmother living with her husband in the more affluent area of south Liverpool. She now spends her time caring for family members (predominantly grandchildren), volunteering and enjoying leisure activities. Prior to retirement Bev was a full time office worker in the city centre business district, only taking a career break when her children were very young. Although she is a regular car user for trips in and around Liverpool, she is physically active either through walking or cycling on at least three days per week. A minimum of one activity session includes attendance at either the Walk or Cycle for Health schemes.

Across Bev's life-course she has utilised the park for a number of purposes. As a child she frequented the park with her parents and siblings, and generally enjoyed a variety of what was then considered 'traditional' park activities (including swimming, boating and concerts). During her childhood and adolescence park entertainment was one of the social highlights, particularly in the summer months. Boating lakes were well used and parks were utilised as entertainment venues with open concerts and shows. Over Bev's life-course she has seen what she considers to be 'traditional' activities diminish.

As Bev married and her own family came along, the emphasis on parks evolved towards providing a leisure space for her own children to run free and play. Bev feels Liverpool has some fantastic parks that are able to offer this facility. In the larger parks there are vast amounts of open spaces that provide opportunities for games and sports, with Bev's family taking full advantage of these facilities. Now her children are grown up and have children of their own she tends to use the parks for her own leisure purposes. She regularly attends the local walking group which offers her the opportunity to access the open air environment and the chance to socialise with other people.

Bev recognises that park facilities have evolved over her life-course, but still enjoys the fact the flora and fauna that continues to blossom is to some extent timeless (in parks that are 'manicured' and 'cared' for). Overall Bev believes the park environment entices families to continue using the spaces for a variety of structured and unstructured activities.

In contrast to the parks, the urban city was predominantly described as a congested place designed for commercial and work opportunities, as well as socialising and entertainment purposes. Because of the traffic problems surrounding the city, some participants felt active travel was a preferred mode of transport in this environment, where activity in parks was related more to leisure. Figure 5.11 introduces the theme profile that depicts typical participant responses in relation to city activities and purpose for use. Sally has been used as the main character to story these experiences as she provides a dominant viewpoint for this theme (see Box 2)

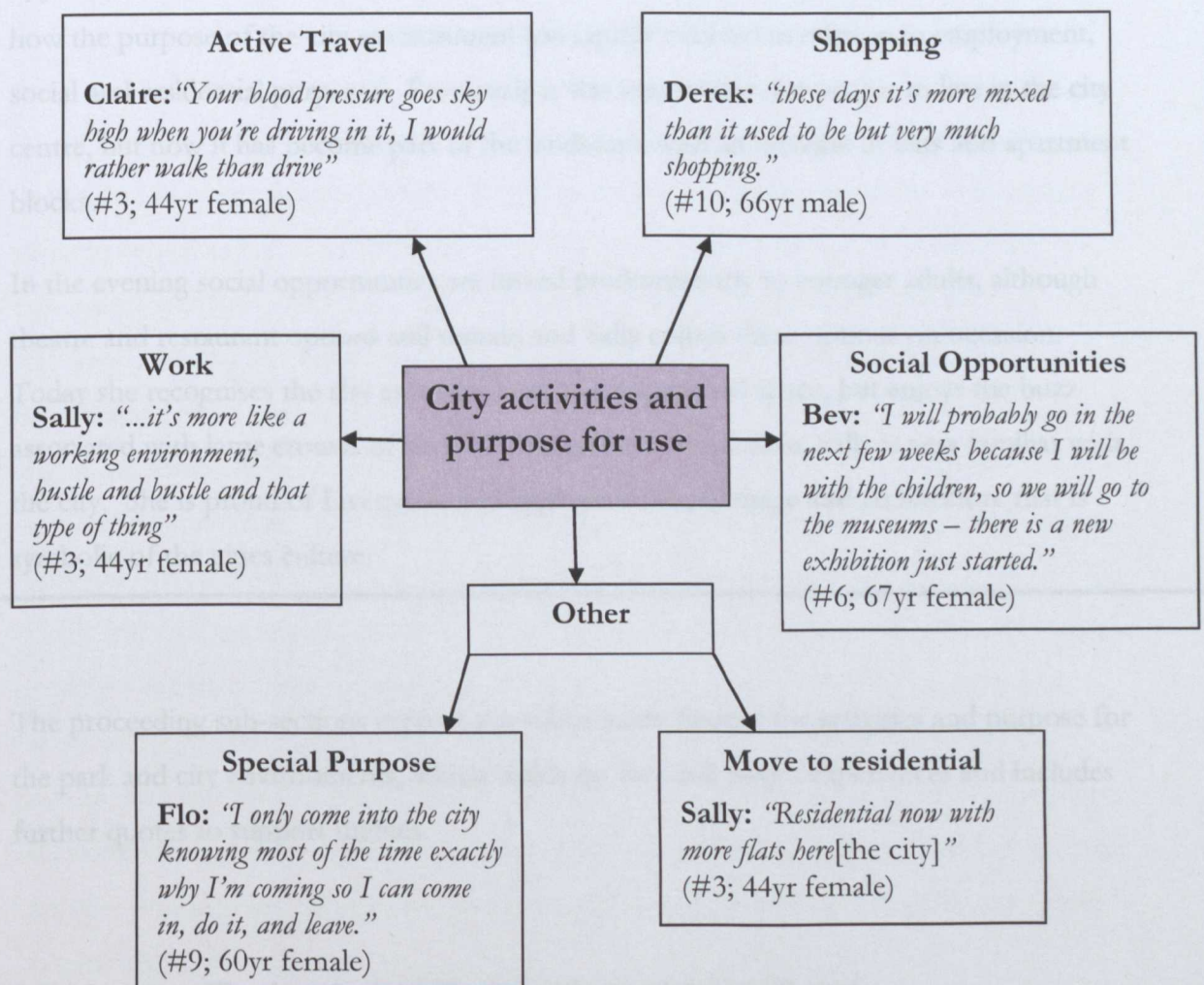


Figure 5.11: Activities and purpose for use in the city environment.

Box 2:

User profile 2: Activities and purpose for use in the city environment.

Sally is a 47 year old married mother of two. She considers herself a regular walker, jogger and occasional cyclist. Sally currently works part time in the health sector. Although she works remotely across the city, she is based in the city centre, and therefore accesses the city centre on at least 3 days a week for work and a minimum of one day for leisure (usually shopping). Sally has lived in Liverpool for most of her life and is familiar with the city and the changes that have occurred over her lifetime.

As a young adult Sally worked full time in the city centre. She relished the social opportunities and the freedom experienced from being in this environment, although notes how the purpose of the city environment has rapidly evolved in relation to employment, social and residential purposes. Previously it was uncommon for people to live in the city centre, but now it has become part of the landscape with an increase in flats and apartment blocks.

In the evening social opportunities are linked predominantly to younger adults, although theatre and restaurant options still remain and Sally enjoys these options on occasion. Today she recognises the city as a very busy and impersonal space, but enjoys the buzz associated with large crowds of people. As a native Liverpoolian, Sally is very familiar with the city. She is proud of Liverpool, and appreciates the heritage and architecture that is symbolic of the city's culture.

The proceeding sub-sections explore the subordinate themes for activities and purpose for the park and city environments, which builds on Bev and Sally's experiences and includes further quotes to support themes.

5.3.4.1. Physical Activity Participation and Active Travel

Urban parks were described by all participants as places that provide a variety of physical activity opportunities for groups and individuals. The design of parks, and their respective facilities, allowed for a range of physical activity pursuits such as structured activities (e.g., organised sports), individual activities (e.g., walking and cycling) and unstructured play (e.g.,

fun games with children). Many of the large parks in Liverpool were described by Sally and Bev as providing a number of zones for specific purposes such as children's play areas and nature walkways. However if a particular park did not provide the space or activity required they were prepared to travel to access different (local) parks and natural spaces that suited their needs. As Sally explains:

"Newsham Park is right by me, but I don't seem to like that park. I think Sefton park is much nicer... I just find Sefton Park a lot more better to run round I think. I just don't like Newsham park to run round at all." (#3, 44yr female)

There is a need for parks to provide spaces and activities that fits the activity they want to do (i.e. purpose for use) suggesting that what a park offers is an important factor for attracting different user groups. This finding supports ART (Kaplan & Kaplan, 1989), which purposes that four elements of an environment should be present for attention restoration to occur (Kaplan, 1995). In this case participants described the compatibility element, which refers to a match between what a person wants to do, and what the environment offers. Park compatibility described by participants included the need for a number of activity and other physical features. This finding supports recent evidence that the presence of a variety of active park features is important within a park environment (e.g. trails, sports fields, playgrounds and toilets). The presence of these features within a park environment have been linked to moderate-to-vigorous physical activity and higher visitation (Floyd et al., 2008; Kaczynski et al., 2008; Cohen et al., 2010; Rung et al., 2010). Whilst some of the larger parks in Liverpool (including Sefton Park featured in this study) provide a variety of activity spaces and facilities, other parks fail to offer facilities and therefore might discourage visitation and reduce the possibility physical activity participation and other potential psychosocial benefits. Further investment in providing additional zones and facilities across other parks in Liverpool has the potential to increase visitation and possibly the additional effect of perceived and actual safety through higher utilisation (Godbey, 2009).

In contrast to physical activity associated with parks, the city centre was related more towards active travel (walking and cycling) with the majority of trips related to work or commercial purposes (i.e. shopping). For example Claire, Sally and Flo described active travel as a means of avoiding congestion and the stresses related to car use within a busy

city. Besides the volume of traffic, the financial burden associated with increasing parking costs acted as a deterrent to driving cars within the city centre. Claire illustrates the difficulties of driving in the city centre as opposed to active travel:

“...as I say it is expensive to park if you’re going shopping into town, also the traffic can be a nightmare getting through the city centre... As for foot it’s not too bad.” (#17, 38yr female)

Although some participants described pleasure in active travel participation, others implied it was more of a necessity because of traffic congestion. This suggests that for some participants if driving was an easier option then car use would be the preferred mode of transport. Therefore to encourage active travel as a preferred choice, in addition to traffic calming strategies that focus on increasing costs to discourage driving, policies now need to move towards more investment in active travel infrastructure to provide a safer environment to participate in this activity (NICE, 2008). This would include local councils auctioning environmental design initiatives that increase high street connectivity and provide direct active transport links and multiple routes to safely reach destinations. Changes such as these to a city design have been linked to higher walking rates and reduced driving (de Nazelle et al., 2011). Such initiatives have the potential for people to choose active travel for personal benefits as opposed to being ‘forced’ to move away from car use.

5.3.4.2. Social opportunities in urban park and city environments.

It was evident that both environments provided a variety of social opportunities, most of which were viewed as important for different aspects and times across the life course. Whilst parks provided an opportunity for unstructured activities and access to nature for all social groups, the city was associated with different cultural activities that provided an alternative sort of stimulation and environment for socialising predominantly within adulthood.

All participants identified parks as a place for families, including extended families, and venues for socialising with peers. Participants like Bev who have regular contact with their grandchildren acknowledged the importance of parks to entertain children. Part of the appeal for Bev relates to the lack of cost associated with use of facilities and space

available, and for some characters like Sally, the opportunity to provide natural spaces that homes do not cater for (i.e., garden provision). For example Sally does not have a large garden and therefore accesses parks to provide the opportunity to access a natural outdoor space, usually to socialise with other people:

“...not many of us have got gardens or big gardens so if you’ve got reasonable sized group of people together the park is a nice thing to do, although that’s not on a regular basis.”

(#18, 43yr female)

Although residents with smaller or no gardens have been those associated with increased use of local parks and open areas, recent evidence suggests that it is actually people with larger gardens that tend to use residential green space and parks more frequently (Syme et al., 2001; Maat & de Vries, 2006). It is argued that those people who are interested in living in places abundant with natural features are more inclined to live in homes that also offer this feature and therefore use local resources more frequently. However, like with the findings of this study house and location choice is not a viable option for many participants so it is difficult to draw full conclusions on this matter (Maat & de Vries, 2006).

Nevertheless parks have the potential to provide outdoor space and natural ambiance for all communities and if more of the population were aware of the benefits of nearby nature then their individual connectedness (and therefore use) to natural environments like parks would likely increase regardless of garden size.

Away from the parks, the city environment was predominantly associated with employment and commercial shops, although social opportunities were noted. Social opportunities included bars, theatre and some cultural attractions (where children occasionally accompanied). Unlike the parks it was recognised that social opportunities in the city tended to have an associated financial cost. It was noted, particularly by Flo and Bev, that within the past few decades the social activities associated with the city centre in the evening tended to be more structured entertainment, aimed primarily at adolescents and young adults (Thomas & Bromley, 2000). This was demonstrated when Liverpool achieved the 2008 Capital of Culture status, which resulted in funding for regeneration, particularly within the city centre. Although the regeneration aimed to bring the renaissance of the port and industrial routes back to the forefront of city and revive the culture synonymous with Liverpool, instead a large focus was placed on retail and business

regeneration. As Evans (2005) argues, “the attention to the high-cost and high-profile culture-led regeneration projects is in inverse proportion to the strength and quality of evidence of their regenerative effects” (p.960). Evans further highlights that whilst many projects increase attention on cities such as Liverpool, they fail to fully implement cultural related activities to revitalise the city centre for all social groups. They instead tend to focus on business, retail planning and cultural tourism that bring maximum financial return (Evans, 2005). Such developments include shopping and evening entertainment that both Flo and Bev might further associate with alcohol consumption and the perception of antisocial behaviour.

5.3.4.3. Exploration: Personal well-being and development in parks

All but one participant experienced regular urban park related activity (typically free play) during their childhood. Discussions surrounding park use evoked a number of childhood memories and positive nostalgia. For example, Derek shared childhood stories and family experiences that associated park and natural environments with freedom and adventure. For Derek, childhood presented a time of discovery and exploration of nature, with amplified opportunities to explore due to increased freedom from guardians:

“As a child we were there [the park] nearly every night, but it was a safer environment then. As a child you were at school till 4 o’clock, quick jam sandwich and you were out again on the park again with your mates to wind down after school.” (#10, 66yr male)

Participant experiences during childhood support the notion that the use of parks and green spaces at this time can be a factor for continued use across the lifespan (Louv, 2005; Travlou, 2006). As Louv (2005) advocates, interaction with nature within childhood sets the scene for use within adult stages of use. This may explain why participants still reported seeking out new natural spaces and sites to expand experiences and discover new natural environments. Particularly for the female participants, childhood experiences were predominantly influenced by parents. Parental support has been cited as an important factor for access and child physical activity levels, particularly with the current generation of children (Tucker et al., 2007; Trost & Loprinzi, 2011). Therefore understanding park preferences and highlighting the benefits of this environment might influence increased park visitation by families, thus providing more interaction and opportunities for children to develop their own experiences of accessing natural environments.

At both childhood and adult level, all participants enjoyed, and in some cases were excited by, exploration opportunities within the natural environment. Linked to personal wellbeing and development, participants described different levels of connection and use within different stages of life. For example Sally visited the park frequently as a child with her parents, then with peers during her teenage years. But as she started work and got married more time was spent in the city for entertainment and less in the park, until her children came along:

“The only time I really did stop going the park was like where, when you’re with your partner, you’re working and you haven’t got time to fit the park in. But when you’re 16, 17 and 18 you do fit them in because you know like that feller you fancy is going to be there...”
 (#1, 56yr female)

Despite participants ranging in ages and their current stage of life (mid adulthood to retirement), participants followed a similar pathway and park use pattern from childhood to their current stage (see figure 5.12). Similar patterns of use have previously been found in the UK, further supporting the notion that adult access to natural environments was associated with high usage during childhood (e.g., Ward Thompson et al., 2004; Jorgensen & Anthopoulou, 2007).

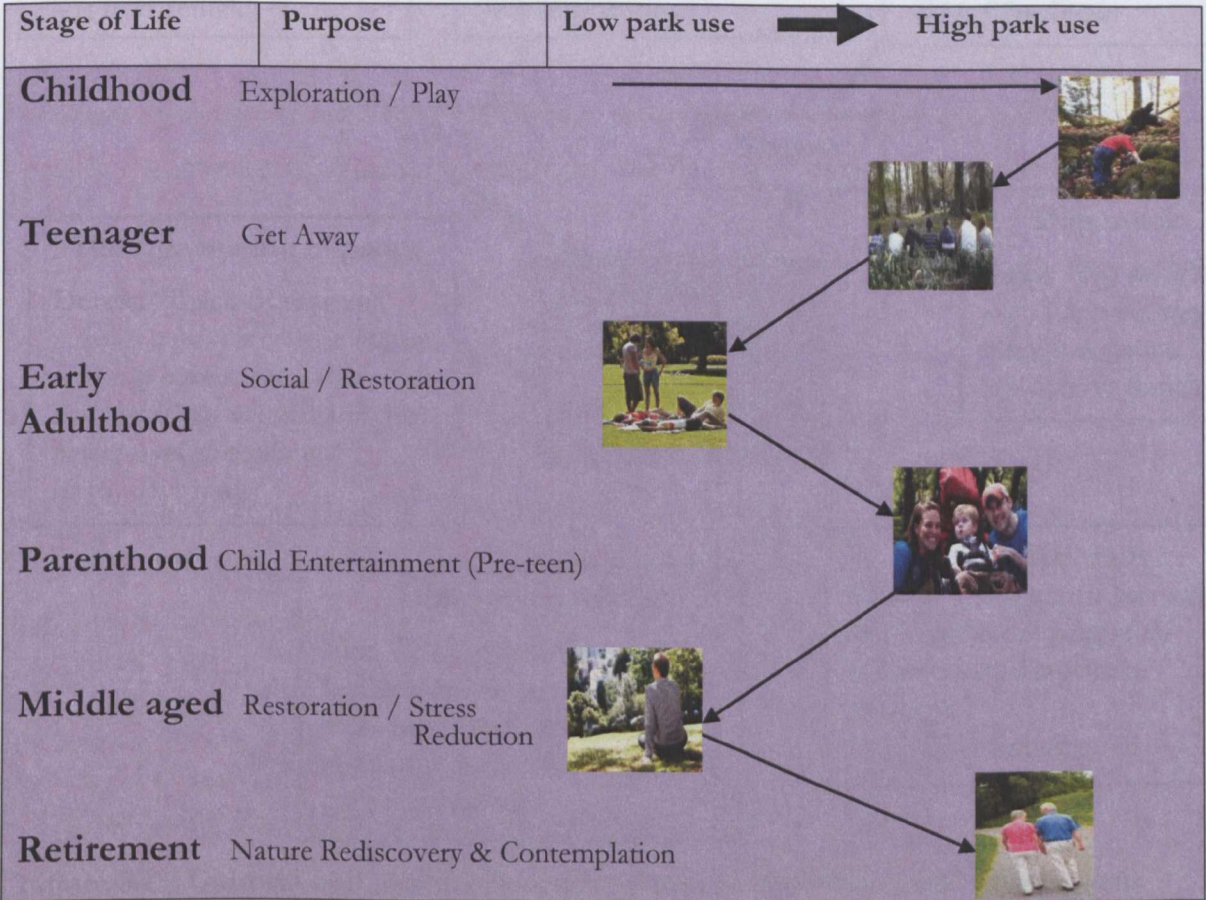


Figure 5.12: Generational park use

5.3.5. Cultural and social influences related to the urban park and city environment

The cultural and social related influences theme surfaced from interview questions related to environment descriptions, personal experiences and barriers that limit access to the urban park or city. The theme relates to observations that have an effect on local culture and social interaction within each environment. These are usually based on shared values, goals and practices.

Five subordinate themes emerged from the park environment including safety, neglect, childhood memories, teenage misuse of parks, and individual traits. Figure 5.13 portrays the theme profile, while box 3 describes Sally's experiences and feelings related to cultural and social related influences of park use.

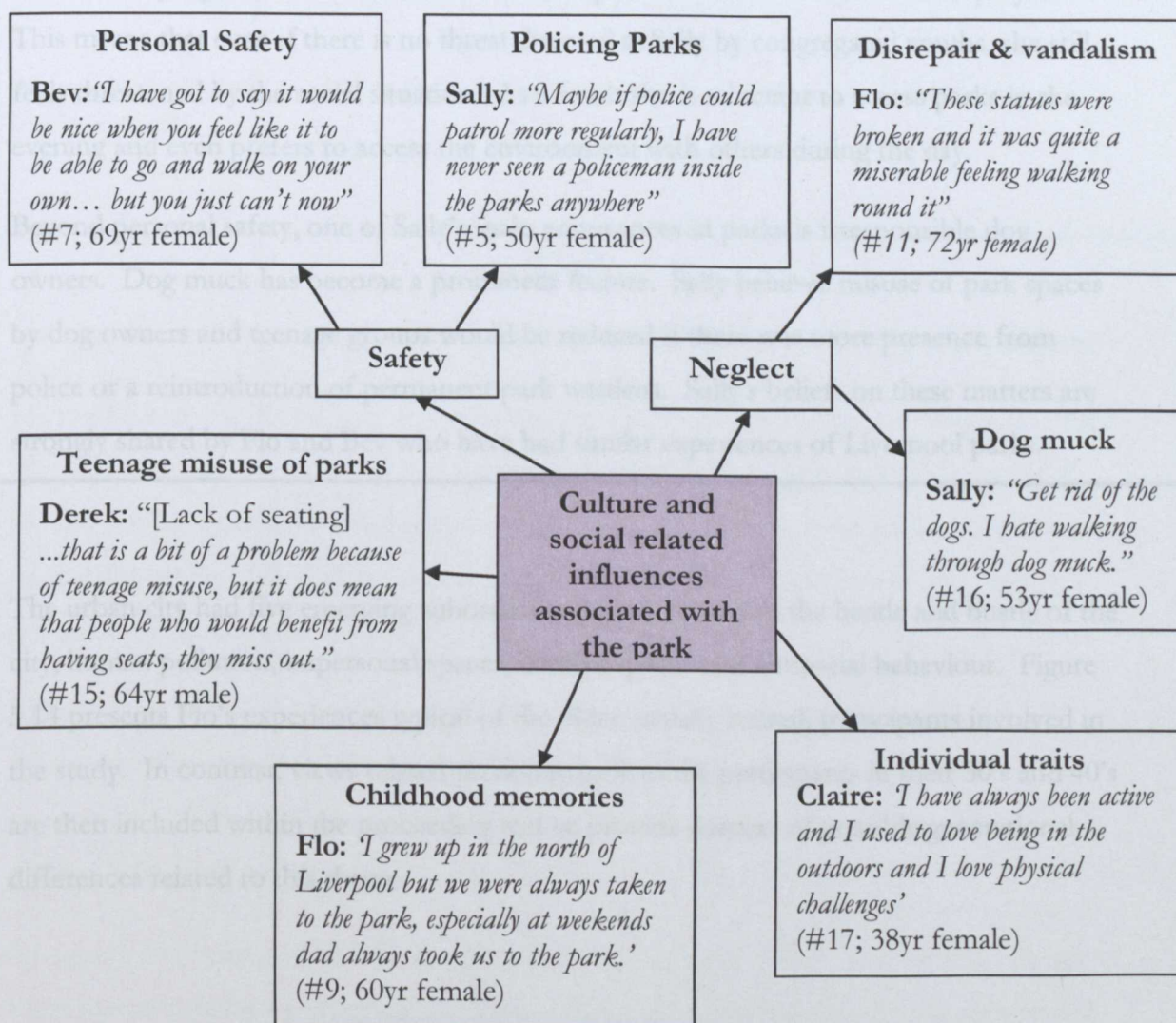


Figure 5.13: Cultural and social influences related to the urban park environment

Box 3:

User profile 3: Cultural and social influences related to the urban park environment

Sally has accessed parks across Liverpool from a very young age and has experienced many changes in terms of how the spaces have developed and are now used. Although Sally regularly enjoys the park environment, she is extremely conscious of her personal safety and has strong preconceptions about how safe the parks are without the visible presence of authority figures.

When Sally was a child through to her teenage years she recollects how park wardens were visibly present in the majority of parks across Liverpool. She has since seen a reduction in many of the large parks, with none now present in smaller 'local' parks. Sally believes this has had an effect on how parks are used, particularly by teenage and adolescent groups. For example in her local park there are visible signs of alcohol related activity, with rumours of gangs and violence, which were not present when wardens were employed. This means that even if there is no threat directed at Sally by congregated youths, she still feels threatened by the social situation. As a result she is reluctant to access parks in the evening and even prefers to access the environment with others during the day.

Beyond personal safety, one of Sally's main annoyances in parks is irresponsible dog owners. Dog muck has become a prominent feature. Sally believes misuse of park spaces by dog owners and teenage groups would be reduced if there was more presence from police or a reintroduction of permanent park wardens. Sally's beliefs on these matters are strongly shared by Flo and Bev who have had similar experiences of Liverpool parks.

The urban city had five emerging subordinate themes related to the hustle and bustle of the city, human pollution, impersonal spaces, derelict spaces and antisocial behaviour. Figure 5.14 presents Flo's experiences typical of the older, usually retired, participants involved in the study. In contrast, views related predominantly to the participants in their 30's and 40's are then included within the proceeding text to provide context of possible generational differences related to this theme.

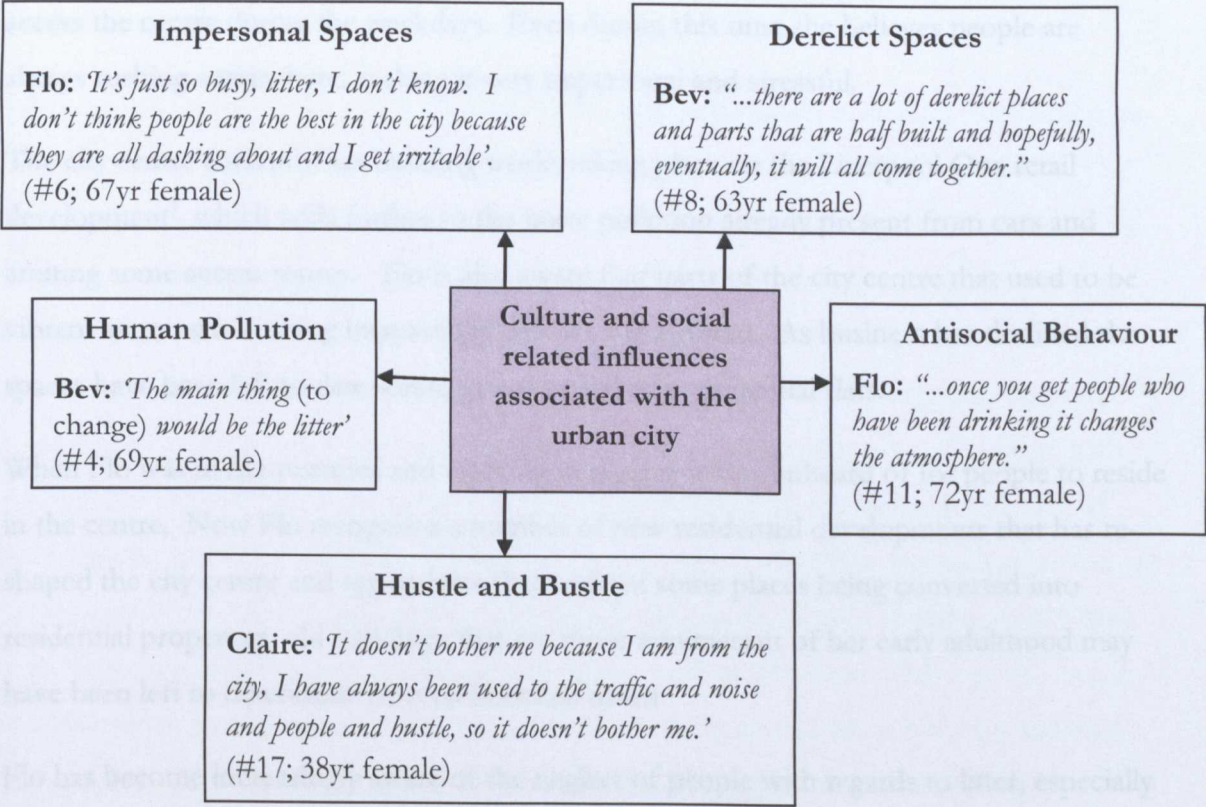


Figure 5.14: Theme profile 4: Cultural and social influences related to the urban city environment

Box 4:

User profile 4: Cultural and social influences related to the urban city environment

Flo is a 62 year old retired wife and grandmother and has lived in Liverpool for most of her life. Flo considers herself as an ‘outdoor person’ and believes her health would suffer if she did not have access to natural environments and in particular local parks. As an active participant of the Walk for Health scheme she regularly encourages friends and family to get involved either in the scheme itself or in healthy activities.

In relation to the city centre, Flo is appreciative of the Liverpool architecture, but is conscious of how busy the city has become (especially with regards to the retail experience). When Flo does visit the city centre she tends to drive to the outskirts where parking is free and walk into the central zone to avoid congestion.

As a result Flo infrequently visits the city centre, choosing only to go when really necessary. Visits are predominantly for shopping purposes, although she does attend the theatre and other cultural events. Flo is not keen on large crowds, so now she is retired she tends to

access the centre during the weekdays. Even during this time she believes people are always rushing somewhere, making it very impersonal and stressful.

The city centre currently has building works taking place on the Liverpool One retail development², which adds further to the noise pollution already present from cars and limiting some access routes. Flo is also aware that parts of the city centre that used to be vibrant are now becoming increasingly derelict and ignored. As business has declined the spaces have been left to deteriorate or converted into residential flats.

When Flo was in her twenties and working in the city it was unheard of for people to reside in the centre. Now Flo recognises a number of new residential developments that has reshaped the city centre and appreciates that without some places being converted into residential properties, old buildings that are more reminiscent of her early adulthood may have been left to deteriorate or even knocked down.

Flo has become increasingly aware of the neglect of people with regards to litter, especially related to the use of fast food outlets. The increase in visible litter around the city is becoming more of a problem. She has witnessed all age groups, particularly children and young adults, regularly ignoring visible bins and throwing litter on the streets.

Moreover Flo notes how antisocial behaviour and ignorance particularly of adolescence and young adults is more notorious nowadays in comparison to when she was younger. She believes this is usually fuelled by alcohol and is linked to the bars and clubs now synonymous with city centre entertainment. As a result Flo believes that of an evening, the city centre environment predominantly caters towards younger generations, which has contributed to reduced access particularly in the evenings.

The proceeding sub-sections explore the subordinate themes for cultural and social influences related to the urban park and city environment, which builds on Flo and Sally's experiences and includes further quotes to support the theme.

²During the study timeframe a new shopping development (Liverpool One) was near to completion within the city centre. The development is boasted to be the largest city centre regeneration project in Europe and is focused on retail and leisure facilities, although also includes residential properties. The project took just over four years to complete and was opened shortly after this study was completed.

5.3.5.1. Safety

Personal safety was a concern particularly for female participants in both the city and park environments either related to personal safety or family members (usually children). The feeling of insecurity in parks is not a new phenomenon with previous studies and survey's findings similar fears (e.g. Bixler & Floyd, 1997). Within the current study, participants identified a number of security-related barriers to park use. Specifically, barriers related to the perception and presence of anti-social behaviour and crime (including violence and vandalism). Levels of disrepair and vandalism related to perceptions of park safety, with participants relating antisocial behaviour to a reduction in park use and reduced care of park spaces. Safety in numbers, especially among characters like Bev and Sally, was seen as an important deterrent. Sally in particular provides insightful details of safety within each environment and enjoyment of each based on perceptions of safety. Although she had a preference for natural environments, she was more likely to visit the city for recreational purposes because there is an element of safety in numbers present.

"I mean the parks I don't use very often because of the safety thing, I always get a bit frightened [...] It could be good for ya, you know it could be quite relaxing, erm if it was safer. When I was walking through the park and I see a man walking past you sort of get a bit erm, flinch you half expect him to turn around or. So you're on your guard all the time if you're on your own." (#2, 43yr female)

Perceptions of park safety were further associated with the decline in unstructured and free play afforded to children today (particularly pre teenage children). Specifically, it was recognised that the apparent need for parents to supervise their children for real/perceived safety purposes can stifle the amount of childhood time spent in parks and natural environments (Tucker et al., 2007). Derek in particular recognises that children are being denied the outdoor opportunities that he was afforded because of safety concerns. This need for constant supervision can, in turn, have an effect on physical activity levels, opportunities for imaginative play and aforementioned cognitive development (also see Kong, 2000). Bev who regularly looks after her grandchildren recognises the restrictions placed on children because of safety, with supervision even more of an element to child care than with her own children.

"I suppose it is more important now that you have somewhere to go for the children to play, because they can't play out in the streets kicking the balls round or doing whatever children

should be doing. I mean my grandchildren are not allowed out of the front gate. It's a busy road either side of them so you have to make a concerted effort to take them to the park, just give them back something that they should have anyway." (#6, 67yr female)

Conversely, city safety concerns were associated predominantly to the volume of traffic. Despite reports of active travel among participants to avoid congestion, it is the perceptions of traffic safety that has been associated with a reduction in physical activity participation, particularly among children who are more restricted in public areas by parents (Carver et al., 2005; Timperio et al., 2006).

5.3.5.2. Observations in human behaviour

Flo, Bev and Derek are particularly aware of how parks have changed in social importance and how they are utilised by different social groups during their lifetimes. This is expressed through concerns surrounding the maintenance of parks, the visible reduction in human services (i.e. toilets, cafes and security) and a reduction in physical activities and entertainment opportunities (e.g., swimming, park concerts and boating). Both the urban park and city environments caused concern and distress in relation to disrepair, vandalism, human pollution and irresponsible dog owners. As with Sally, dog muck was also one of the most notable grievances with Bev and Flo. Flo has strong feelings in relation to irresponsible dog owners who do not clean up after their dogs and therefore pollute both the park and city environment for other users.

"It really annoys me, they allow the dogs to do it and they don't pick it up as well because we clean up after ours." (#7, 69yr female)

Within parks vandalism and disrepair often caused stress and anger as it distracted attention away from other features. A number of local parks were identified as places that have gone into disrepair and attracts more antisocial behaviour.

"I know that the likes of Newsham Park is a place for drinking, the kids are drinking of weekend in there and stuff like that so it can be quite intimidating if you're on your own." (#7, 69yr female)

The negligence of people and local governance (e.g., with littering and a lack of maintenance for parks) proved to distract from the natural fascination and escapism usually associated with these places. Although parks and natural environments have been linked to bio-psychosocial wellbeing, stress associated with the aforementioned negligence is reported to prevent mental restoration (e.g., Pretty *et al*, 2005). If a cost benefit was associated with aesthetically pleasing and well maintained urban parks and green spaces (particularly on perceptions of safety), this would support funding for maintenance and monitoring of natural spaces (CABE, 2006a).

Unnecessary human pollution, for example littering, caused grievances and distress among participants because of the lack of respect it presents to the local environment. Human pollution was more evident within the city centre environment where convenience lifestyles and the diffusion of responsibility to negative social behaviour were visible (e.g., use of takeaway shops and the associated littering of city streets). Participants associated human pollution with increases in antisocial behaviour of adolescent user groups who were viewed to have less respect for the local environment. This was described by older participants as an emerging culture of laziness and disregard for the local environment, something that would not have been previously acceptable behaviour.

“But that is a real source of aggregation, litter... why do they drop it, erm, I think it is probably the way they have been brought up. Sometimes you see parents out with children throwing litter on the ground, so the kids don’t stand a chance really... I think it’s my generation where it’s a real pet hate.” (#6, 67 year old female)

Despite these grievances, overall parks were viewed as people places, with positive human interactions in terms of pleasant gestures and general communication. This was partly attributed to the type of activities taking place in the parks that allowed for more time and spaces to partake in common interests (e.g., the runners nod is a familiar gesture). In contrast the city was viewed as impersonal, partly because it can be too busy with people rushing about. Some participants related the increased pace of the city environment to time pressures associated with the activities taking place (i.e. work and shopping). People were recognised to be more ‘irritable’ in the city. Participants described feelings of

everything being fast paced. These findings support the notion that people act according to their environmental surroundings and its related context, therefore creating environments that foster positive human nature could potentially improve social health (Smyth, 2005; Dittmar, 2007). As Ulrich (1983; 1984) advocates, increasing access to natural features within a city environment might provide some opportunity for attention restoration for the stresses associated with the city. This in turn might impact how people behave in this environment.

5.3.5.3. Influence for use of urban park and city spaces

Participants noted how proximity to parks influenced their level of use, with local neighbourhood parks vital in encouraging physical activity. This is concurrent with previous research that suggests the closer a park is to their home, the more often it is likely to be visited (Neilson & Hanson, 2006), although aesthetics plays a large part in use and satisfactions of parks in local neighbourhoods (Giles-corti et al., 2005). Participants were all familiar with many local Liverpool parks and green spaces located within their neighbourhoods, and were familiar with Sefton park where the scene video was recorded. Parallel with findings of Pinder and colleagues (2009), participants considered themselves as stakeholders in the local parks and green spaces due to their extensive use and familiarity. Such personal affiliation to the parks and natural environments appeared to be a consequence of positive memories and past experiences. For example, Derek has a number of stories related to when he was a boy and the nostalgia of how he accessed the parks with his peers. Moreover Flo's memories related to innocent pleasures of accessing parks at the weekends with her parents, something she was keen to recreate with her own children within the parks.

"Yes well you would go and feed the ducks and they had rowing boats in those days so you could go on the lake... O there is still the lake, quite a big one, but they don't have boats now. Yeah that was something you would go on the lake and people would have model boats, model yachts and you would go and see them. O yes and there was an open air theatre, now come to think about it, and they put on shows and so I used to like them as a child."

(#11, 72yr female)

Participants were all accustomed to the city environment and how it has developed. The majority of participants had at some point worked within the city, and had positive stories related to this experience. Again nostalgia and past experiences enhanced their experience of the city environment. Flo, Sally and Bev in particular described a personal affiliation and identity with the Liverpool culture (i.e., very friendly and welcoming). This created positive feelings that Sally in particular likens to those experienced within a park environment. Sally notes that the city can create positive feelings and an experience as good as a park, but for different reasons.

"I think it sometimes depends on the mood you are in. If you're going for a walk sometimes it is nice to have a peaceful walk in the park or whatever but sometimes I think you need to see a bit of life and I think coming into the city you feel that." (#4, 69yr female)

In particular impressive architecture and buildings with historical significance were seen as attractive features of the city. Flo in particular is captured by the impressive architecture and interesting places (e.g., the Liverpool docks) and see these as a critical aspects of the city recreational experience. Subsequently such scenes were viewed as comparable to the presence of natural environments in enabling attention restoration through fascination and the ability to let the mind wonder. This finding supports empirical evidence by Karmanov and Hamel (2008) who concluded that as people increase their learning of an urban environment and its meaning through cultural and historical information, it can increase the fascination and attractiveness.

"...it is quite nice to feel you are part of a city. I like small towns but I've been living in the city for a long time, you know 20 years now and yeah there is a bit of excitement about coming into the city with some fantastic architecture and I like to see that occasionally." (#18, 43yr female)

Furthermore, the regeneration of Liverpool meant the majority of participants recognised a cultural shift in how these spaces were now used. Like many other UK northern cities, Liverpool is now built around the promotion of a combination of uses specifically retail, residential, commercial, and leisure (Spink & Bramham, 1999). More traditional activities that used to frequent the city centre (i.e. cinemas, bingo halls and bowling alleys) have predominantly been moved to city fringe 'leisure

parks’. This has led to a shift in the city centre towards adult evening entertainment involving pubs, clubs, cafes, and restaurants. Although Liverpool was recognised to still contain many of its old and historical features (as noted by comments surrounding the architecture), new developments and the way the city centre is used was recognised certainly by Flo and Bev to favour younger adults.

5.3.6. Perceptions of the urban park and city physical environment

Figure 5.15 depicts the subthemes for the perceptions of the urban park and city physical environment theme. This theme relates to components of the park environment, including design and perceptions that influence their use. Box 5 describes Derek’s perceptions of the urban parks physical environment, which is similar to all of the characters.

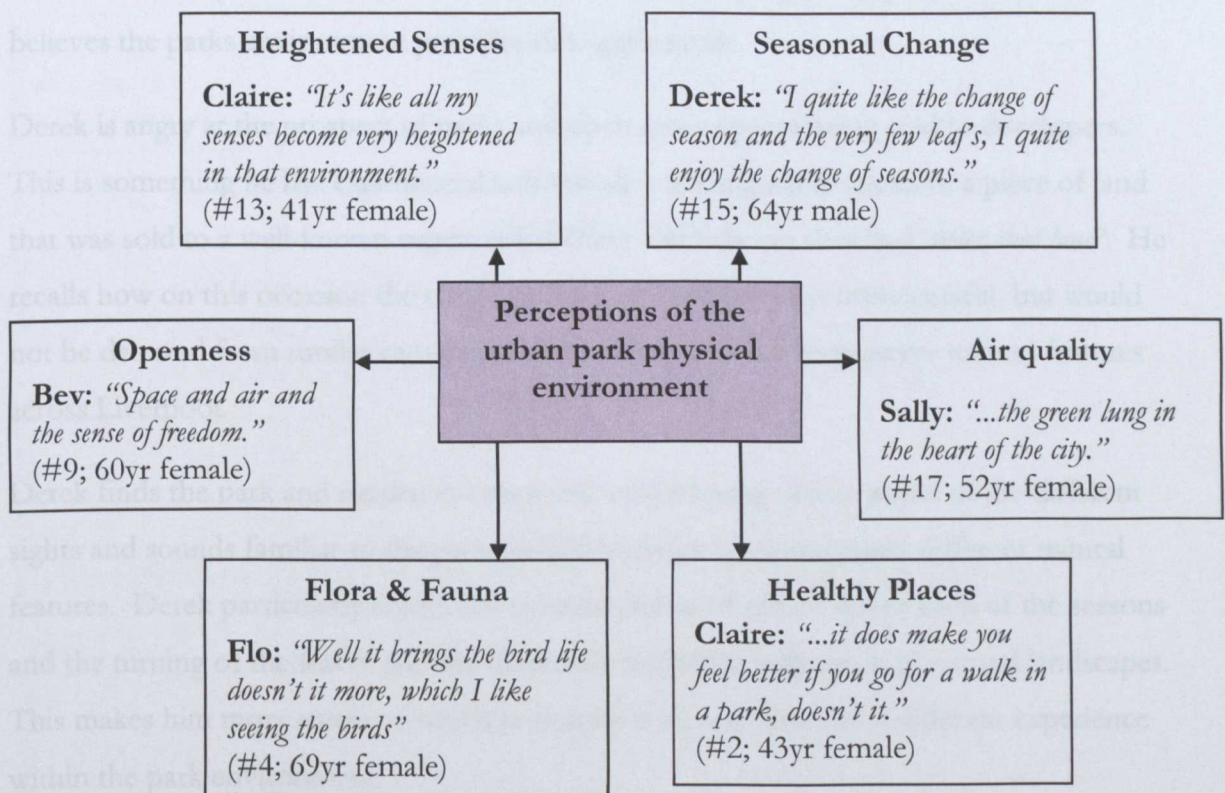


Figure 5.15: Participant perceptions of the urban park physical environment

Box 5:

User profile 5: Participant perceptions of the urban park physical environment

Derek is a 65 year old retired husband and grandfather. He moved to Liverpool as adolescent and has resided in the city ever since. Although he original lived in a very run down and poor area, he now lives in a quiet and 'leafy residential area in the south of Liverpool. Although he is physically active on at least 3 days per week through walking activities, he is obese.

Derek is familiar with the Liverpool parks, and regularly frequents those in the south of Liverpool where he now lives. He considers himself lucky to have good, well-kept parks near to his home and feels sorry for people who are not fortunate enough to have easy access to a decent park facility. Because the parks are so close, Derek and his wife often go for short walks to get some fresh air and enjoy being outside and away from the four walls he sees as synonymous with the indoors. He likes to see people enjoying themselves, and believes the parks environment provides this opportunity.

Derek is angry at the prospect of parks and open green spaces being sold to developers. This is something he has experienced and actually campaigned to preserve a piece of land that was sold to a well-known supermarket chain and believes they had '*stolen that land*'. He recalls how on this occasion the campaign by local residents was unsuccessful, but would not be deterred from similar campaigns in the future in order to preserve natural features across Liverpool.

Derek finds the park and natural environment very relaxing. He is aware of the different sights and sounds familiar to the parks, which includes birds and many different natural features. Derek particularly enjoys the transformation of nature across each of the seasons and the turning of the leaves and the familiarity this bring with the local natural landscapes. This makes him more aware of which season he is in, and provides a different experience within the park environment.

The urban city had five emerging subordinate themes related to participant perceptions of the city environment. Box 6 details Bev's perceptions of the theme, with other characters providing their 'view' through participant quotes in relation to sub themes detailed in Figure 5.16.

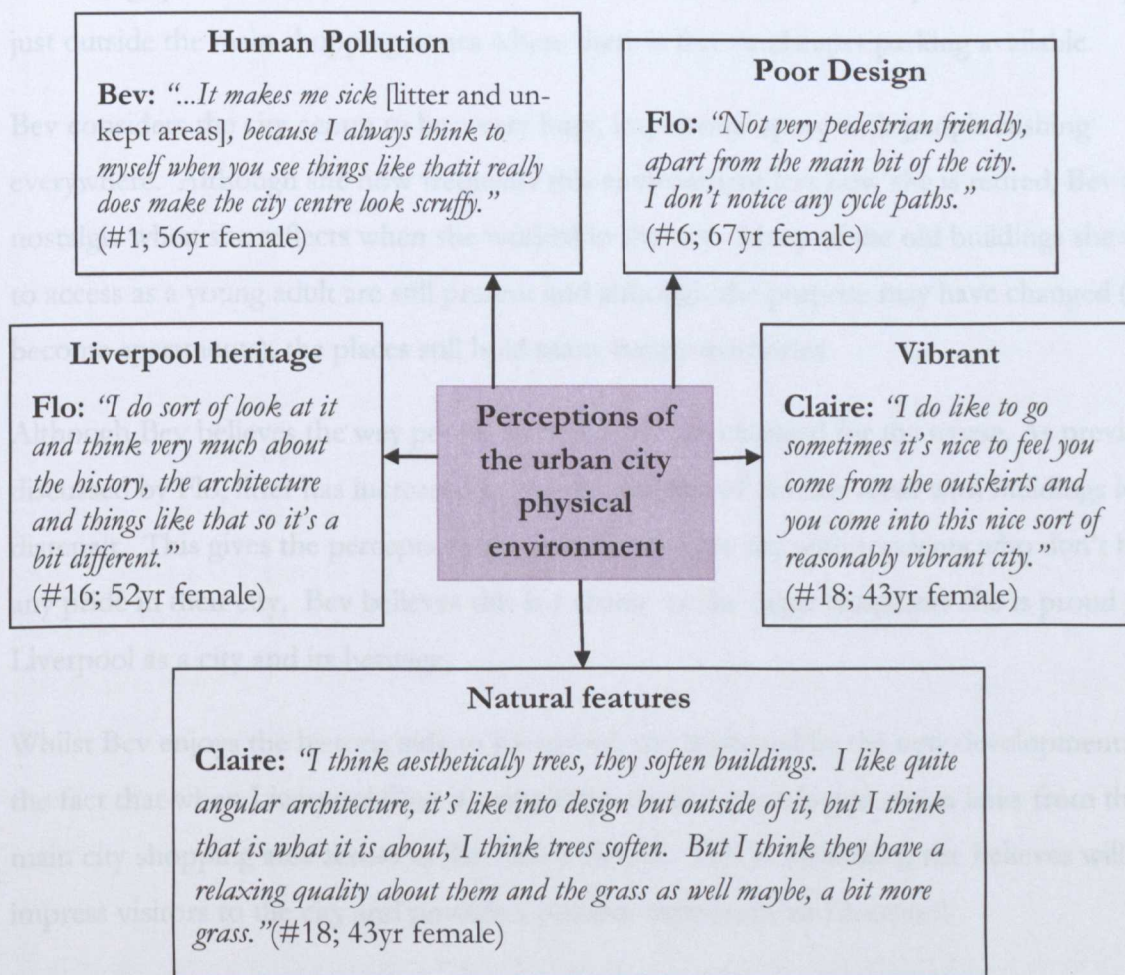


Figure 5.16: Participant perceptions of the urban city physical environment

Box 6:

User profile 6: Participant perceptions of the urban city physical environment

As Bev is now retired she tends to access the city centre on the week days when there are less people. She enjoys shopping for other people (usually family members) or when she has something specific to buy for the house. She tends to drive into the city centre but will park just outside the main shopping zones where there is free or cheaper parking available.

Bev considers the city centre to be a very busy, impersonal space with people rushing everywhere. Although she now frequents this environment less now she is retired, Bev feels nostalgic when she reflects when she worked in the city. Many of the old buildings she used to access as a young adult are still present and although the purpose may have changed (i.e. become apartments), the places still hold many happy memories.

Although Bev believes the way people treat the city has changed for the worse. As previously discussed by Flo, litter has increased as has the number of derelict areas with buildings left in disrepair. This gives the perception of a scruffy, un-kept city with residents who don't have any pride in their city. Bev believes this is a shame as like other characters she is proud of Liverpool as a city and its heritage.

Whilst Bev enjoys the historic side to Liverpool, she is excited by the new developments and the fact that when Liverpool One is complete it should provide pedestrian links from the main city shopping area across to the Albert Docks. This is something she believes will impress visitors to the city and provide a positive experience of Liverpool.

Bev believes there is a need for more natural features to be present in the city centre environment as they soften the buildings and makes the place look and feel more pleasant. She believes it gives the feel that a little bit of the country has come to the city. In places where more natural features have been added she believes it makes a real difference, and is therefore shocked when such features are often removed and replaced by concrete which she has witnessed recently.

Finally Bev would like to see more benches available within the city environment, especially around places of historic significance and away from the traffic so she could take her time and enjoy these places more. She believes the lack of benches is becoming a barrier for people to fully enjoy what the city centre has to offer and should be incorporated into the city design.

The proceeding sub-sections explore the subordinate themes for participant perceptions of the urban park and city physical environment, which builds on Derek and Bev's experiences and includes further quotes to support the theme.

5.3.6.1. Perceptions of the park and city environments

With regards to both the park and city physical environments, it is evident for all participants that it is not just about providing facilities and activities expected of those places, but ensuring they are inviting places that increased perceived benefits for use. All participants believed that parks and urban green spaces need more investment. Participants like Flo, Bev and Derek who have seen the parks change considerably over their life time believe that investment needs to be sustained to ensure parks do not revert back into disrepair. Investment was related largely to maintenance, provision of additional facilities (e.g., public benches and toilets) and safety to reduce the perception of fear. This viewpoint is concurrent with findings by CABE (2006^b) who propose that the reduction in park funding has impacted on utilisation due to the deterioration and erosion of aesthetic features. Without increased and sustained investment in *all* parks and open green spaces across Liverpool the perception of safety and any benefits related to these spaces is likely to diminish. Foresight by policy makers into the potential benefits for local residents is therefore vital for funding to be considered (Bird, 2006).

Within the city centre landscape, maintaining natural features were described as important to increase the opportunity to connect with nature and soften built features to make the environment more inviting and appealing. Claire, who works in the city centre, believes there is a relaxing quality gained from natural features that goes beyond just providing a more aesthetically pleasing environment to go to each day.

"I think it is about relaxation. I think aesthetically trees, they soften buildings. I like quite angular architecture, it's like into design but outside of it, but I think that is what it is about, I think trees soften. But I think they have a relaxing quality about them and the grass as well. Maybe a bit more grass." (#18, 43yr female)

Recently there has been a call for planners and architects to design cityscapes that incorporate substantial natural features so people can feel consciously or subconsciously connected with nature, readdressing the basic human need for nature in a rapidly urbanizing world (Beatley, 2010). With the evidence surrounding the personal and social benefits of natural features in urban cities now becoming more apparent (e.g. Ulrich, 1991; Parsons et al., 1998; Kuo & Sullivan, 2001; Frumpkin, 2003; Van den Berg & Custers, 2010), it is imperative that natural features become an essential element to city regeneration projects to help foster such benefits and provide connections with nature (Kellert & Wilson, 1993). Although funding for public services such as this may be perceived as expensive (CABE, 2006^a) participants from this study support the belief that the incorporation natural features that are maintained can improve the perception of a city environment and thus has the potential to also increase other important political concerns such as the economy through tourists and investment (Evans, 2005).

5.3.6.2. Park design

Through the participant interviews it was difficult to define a *typical* Liverpool park or natural space due to the different sizes, maintenance, purpose for use and the surrounding areas. Participants preferred parks with variety and space and although there was an appreciation for manicured parks that were pleasing to the eye, they also enjoyed the opportunity to access places that were wild or un-kept. The integration of flora, which in turn attracted more fauna, increased levels of interest and fascination that has previously been described by Kaplan & Kaplan(1989).

There is now emerging research surrounding the physical components of what parks and green spaces should contain to maximize mental restoration and decrease the stressors associated with urban living. In line with ART (Kaplan & Kaplan, 1989), findings indicated that vegetation (i.e., trees, grass and water features) were essential in order to produce a feeling of *being away* and creating fascination (Nordh et al., 2009). Despite the recognised psychological benefits of natural environments, little research has identified the effect on mental restoration and stress reduction when parks and natural spaces include destruction or un-kept components near to or within views (Pretty et al., 2005). Findings of this study suggest that the aesthetics of a park is important for use and therefore the opportunity for psychological benefits, although there is no one design that fully captures the participants

attention. This suggests that there is a need to keep a variety of parks and urban green spaces that can provide different stimulation and activity requirements.

5.3.6.3. City design

For some participants the city of Liverpool, and in particular the city centre, posed a problem for active travel due to poor circulation and design (e.g., one way streets on main routes) and the dominance of motorised vehicles on roads. For example, Sally is very passionate about the lack of resources and designated cycle routes that reduces her ability to cycle in the city. She believes the lack of infrastructure and active travel resources can pose a safety problem not only to themselves from motorised vehicles and but to pedestrians where bikes are forced onto walkways for access.

“I usually tend to walk my bike because I am not sure about the road safety and I can never see any cycle lanes as such.” (#5, 50yr female)

The vast amounts of redevelopment around the city centre created mixed views. Negative comments related to the obstruction or destruction of historical sites, which were deemed important to the city’s history and identity, although some participants were excited with expectations about the new and dynamic buildings slowly emerging from construction sites. As previously cited, Flo is a particular advocate of the historic and architectural aspects of the city and values the cultural element this affords to Liverpool.

“I think Liverpool One is wonderful, the new development, the steps going up, the feeling of excitement and I enjoy the tourists coming thinking how wonderful Liverpool is. But I think there is also when you get away from the city centre I do very much value the architecture like William George Street and St Georges hall. I think we have got tremendous building’s, I wouldn’t like to live somewhere where there isn’t buildings of real quality.” (#11, 72yr female)

Flo’s view supports the argument that whilst natural features are important, quality buildings (both new and old) are also essential to develop the culture and identity of a city. Participant views suggest that modern planners and architects should consider what has previously worked in order to develop quality modern cityscapes that will not diminish and will becoming an integral part of infrastructure in the future.

5.3.7. Personal emotions and mood states evoked by urban park and city environmental stimuli

The park environment had five positive subordinate themes including escapism/being away, relaxation, mental freedom, stress reduction and reliance; and one negative subordinate theme of fear (see figure 4.17). The subjective experiences theme relates to personal emotions and mood states evoked by urban park environmental stimuli. Participant responses are associated with SRT, ART and emotions evoked by natural stimuli and the cityscape. Box 7 details Claire’s subjective experience in relation to this theme.

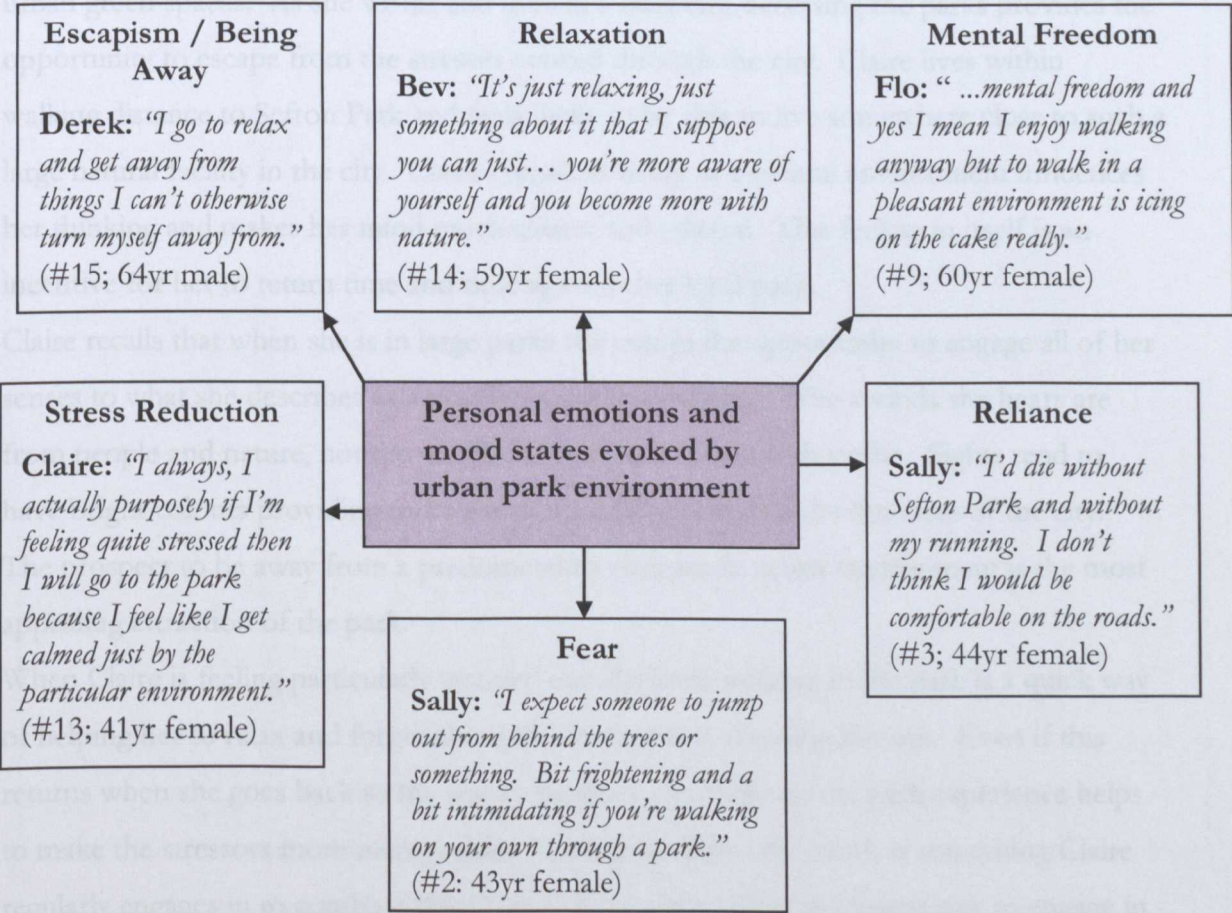


Figure 5.17: Personal emotions and mood states evoked by urban park environmental stimuli

Box 7:

User profile 7: Personal emotions and mood states evoked by urban park environmental stimuli

Claire is a 39 year old female who has lived and worked in the city for the past fifteen years. She has no children and currently lives alone close to Sefton park in the south of Liverpool. As Claire moved to the city for work purposes, she has no family in the city, but spends a considerable amount of leisure time with close friends and their families. Claire is physically active and enjoys outdoor pursuits and fitness classes.

Claire believes parks and natural environments are an essential element of city living and is fully aware of reported benefits for people that are associated with accessing parks and urban green spaces. As she works and lives in a busy city, accessing the parks provides the opportunity to escape from the stresses evoked through the city. Claire lives within walking distance to Sefton Park and feels lucky to be able to live somewhere close to such a large natural facility in the city. Claire considers being in a natural environment influences her thinking and makes her mind much clearer and relaxed. This feeling in itself is an incentive for her to return time and time again to her local park.

Claire recalls that when she is in large parks she enjoys the opportunity to engage all of her senses to what she describes as a positive natural experience. The sounds she hears are from people and nature, not the muffled sounds associated with traffic. Sights tend to have bright colours providing more stimulation as opposed to the drabness of the city. The prospect to be away from a predominantly man made urban environment is the most appealing attraction of the park.

When Claire is feeling particularly stressed out she finds walking in the park is a quick way of helping her to relax and forget about the thing that is stressing her out. Even if this returns when she goes back to the source of stress, she believes the park experience helps to make the stressors more manageable. Visiting the park after work is something Claire regularly engages in to combine this feeling of escapism with the opportunity to engage in some sort of physical activity (usually walking).

Specifically Claire feels that people tend to be much happier and more personable when they are in the park environment. Whilst this may partly be due to the leisure association with the activities being undertaken, she also attributes part of the happiness to the natural features of the environment. As a result it is more likely that people will communicate in a different way, with more pleasantries, than they might do in a city centre environment.

In contrast the city emerged with two positive subordinate themes of nostalgia and excitement/pride; two neutral including feelings of becoming automatic and the influx of multiple cues; and three negative subordinate themes including on edge/fear, annoyance with reduced natural features and stressful (see figure 5.18). Box 8 provides Flo's subjective experiences of this theme and relates specifically to the effect of the city environment on attentional capacity and cognitive function.

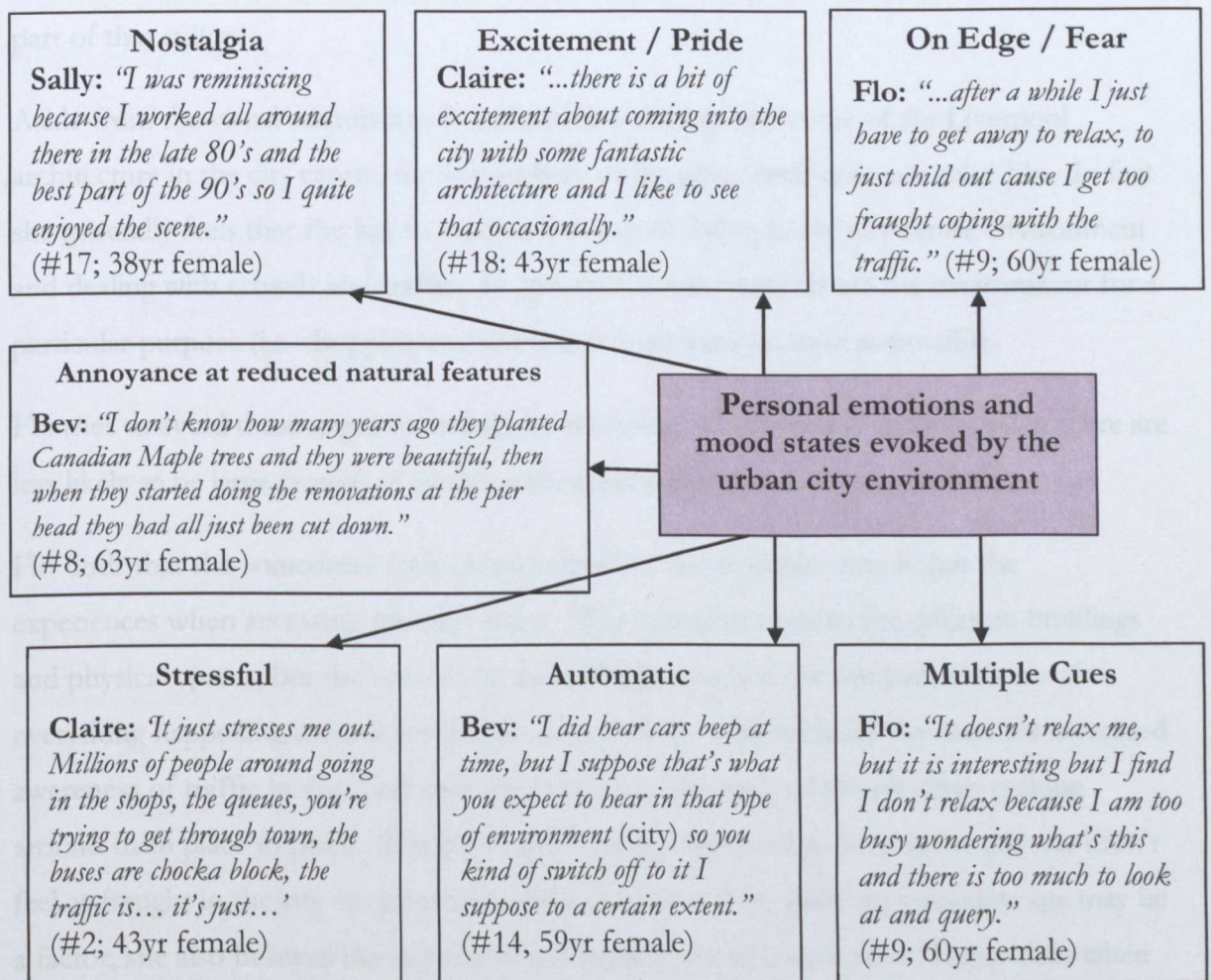


Figure 5.18: Personal emotions and mood states evoked by urban city environmental stimuli

Box 8:

User profile 8: Personal emotions and mood states evoked by urban city environmental stimuli

As with other characters, Flo has a personal preference towards natural environments like parks or places that have considerable natural features as opposed to man-made cityscapes. Nevertheless as Flo has already divulged she enjoys and is appreciative of Liverpool's history and architecture that is abundant in the city centre. This produces a feeling of pride about the city and what the place represents, which as a resident she feels as though she is a part of that culture.

Aside from the visual stimulation from historic buildings and some of the Liverpool architecture in the city centre, the atmosphere of the place itself does not relax Flo. In fact she generally feels that she has to '*cope*' or just '*tolerate*' being in the city centre environment and dealing with crowds and traffic. In general she just wants to use the environment for a particular purpose (i.e. shopping and chores) and get away as soon as possible.

Flo tries to avoid these negative feelings by accessing the city centre at times when there are less likely to be large crowds of people and maximising errands during each visit.

Flo finds that she sometimes feels overwhelmed by the multiple stimuli that she experiences when accessing the city centre. This relates not just to the different buildings and physical spaces, but the need to be increasingly aware of the fast paced nature of everything happening around her in this environment. This includes the need for increased awareness of traffic in non-pedestrianised areas and the pace of people often rushing around from place to place. When Flo was a young adult and worked in the city she didn't feel as fraught in the city environment as she does now, but while she considers age may be a factor, she also believes the city centre has expanded and is now much busier than when she was younger.

The proceeding sub-sections explore the subordinate themes for Personal emotions and mood states evoked by the urban park and city environmental stimuli, which builds on Flo and Claire's experiences.

5.3.7.1. Positive emotions

As Claire highlights, the park environment scene evoked a multitude of positive emotions and feelings related to mental freedom and even spiritual experiences. Access to urban parks, were described by other participants as essential to the well-being of the 'self' and others. Specifically, Claire details how urban parks can provide the opportunity to escape from everyday life. Positive feelings such as the ability to 'de-stress' and 'relax' were evoked by all characters through the natural elements of the park environment. Similar feelings and emotions were reflected to a lesser degree in city areas that contained some 'greenery'. However within the park environment, participants' perceptions that safety was not guaranteed created negative emotions of fear, particularly for Sally.

"So yeah it's there [urban park] to cement and provide sort of a sanctuary really within the city, that's for me it's like really a green sanctuary for people to go and relax and get away from urban living and urban stresses and really enjoy a space that they are in." (#13, 41 year old female)

The positive feelings experienced in parks and pockets of green spaces within the city, suggests that natural features can draw people to these environments. Additionally the 'greening' of city landscapes has the potential to evoke similar positive emotions experienced by the participants in a park environment. This notion is supported by Chiesure (2004) who reported that nature creates positive feelings and is therefore a beneficial service to increasing individual wellbeing, away from material and consumption needs. In this study the city environment evoked more negative emotions, including stress, panic and frustration from participants in comparison to the park. As Flo described, the city environment requires an increased need for directed attention in order to cope with all of the different types of fast paced stimuli. Participants noted the need to get away from this environment in order to restore mental capacity, reduce stress and improve negative emotions. This finding is pertinent to ART and the added value of including natural features within an urban environment and within the city centre surroundings (Kaplan, 1995).

It is important to note that the city did evoke positive emotions related to the excitement of a city development, and nostalgia from the stories the city holds to individuals

(Karmanov& Hamel, 2008). This suggests that while there are stressors that exist within the city environment, it is also a place that can evoke other positive feelings and emotions that cannot be experienced in parks or open green spaces.

5.3.7.2.ART & SRT

Over half of participants reported how they tended to access natural environments, and in particular local parks, when they were feeling stressed and seeking what can be described as attention restoration. Like Claire, Derek finds that being away and accessing nature provides the relief from being surrounded by four walls and the opportunity to clear his mind and forget any troubles.

"I think it [nature] takes you away from your problems, anything like that I think has got to be beneficial as you're thinking of other things, you can possibly let your mind run blank and take in what you can see and hear around you and forget any worries maybe. Whereas if you are stuck inside those four walls it may remind you of problems you might have."

(#10, 66yr male)

Interestingly participants found it hard to describe the subjective feelings experienced and why the natural environment evoked positive mental wellbeing. Although participants could not explain why, they did recognise accessing nature was an important feature in their lives. All of the four elements of ART proposed by Kaplan & Kaplan(1989) were described through participant's shared experiences in parks and natural environments. These related to:

- Being away from their usual work routine (escapism).

"I go to relax and get away from things I can't otherwise turn myself away from. I go for the break and whether that is exercise or resting up I can't really define that."

(Derek; #15, 64yr male)

- The extent to which different parks around Liverpool encouraged varied levels of immersion for sustained interest and attention.

"I think you can switch off [in the parks] more than if you're sitting in the house you're just thinking all the time. Whereas if you're in the park you can look at the flowers, people going

past and think about other things. It's a distraction I suppose."

(Flo; #6, 67yr female)

- Fascination of the natural environment

"It's more friendly in terms of allowing people to engage more with all their senses, you use the eyes more fully to look more in, out and around. You use the nose to smell different plants, the grass etc. The hearing is really, it is really acute when I'm in nature."

(Claire; #13, 41yr female)

- Compatibility of parks in providing a place for desired activity.

"As I say I have 8 grandchildren and the older ones plays tennis, plays football, joining in various things and the 8 year old now either spends half the weekend swimming or in the parks doing one thing or another. So I think there is recreation from that point of view, but I also think it is very nice and restful. You could sit on a Sunday and lounge around and read the papers, but it is nice to say right come on lets go and have a walk."

(Bev; #4, 69yr female)

Participants in this study reported they preferred the park over the city centre environment and perceived it as more psychologically restorative. Participant accounts support both ART and SRT, with findings encouraging increased opportunities and access to well-maintained natural environments and cityscapes that incorporate natural features. This finding is concurrent with previous studies that support both ART and SRT (e.g. Bodin & Hartig, 2003; Pretty et al, 2005; Hansmann et al., 2007). The current study supports the theoretical stances of ART (Kaplan & Kaplan, 1989), SRT (Ulrich, 1983) and indeed Wilson's (1984) concept of Biophilia. Findings provides a basis for further investigation into the potential personal benefits of accessing parks and natural environments, particularly among those groups who do not currently access natural environments who recognise the potential benefits natural features can personally evoke.

5.4. Phase Two Summary

This study looked to investigate the following research questions:

1. Are there bio-psychosocial benefits of parks and natural features?
2. Does access to parks improve bio-psychosocial health and wellbeing?
3. Does the urban city centre have an adverse effect on participation and bio-psychosocial wellbeing?

These research questions are taken into consideration when summarising the study findings.

Phase A found possible biological effects of physical activity and viewing different scenes on blood pressure. Findings demonstrated that both diastolic blood pressure and MAP were lower when walking on a treadmill to a natural park landscape as opposed to a city landscape. This finding suggests that walking whilst viewing a park landscape may have a greater effect than walking in a city environment on blood pressure. As blood pressure is an important measure of cardiovascular health, this could have further implications on the value of parks for public health. This finding is concurrent with previous research findings (Pretty et al., 2003; 2005). With high costs associated to ill health in England (CMO, 2010), these findings support the notion that increasing access to parks has the potential to produce substantial economic and public health benefits (Pretty et al., 2003).

Phase B found psychological benefits associated to attention restoration and stress reduction when accessing urban parks and natural spaces within the city centre. The park afforded increased opportunities for leisure activities therefore providing a more personable place with increased social benefits. Social benefits included the ability to interact with other people (in particular family members), and developmental benefits during childhood through the ability to play and interact with nature. Park environments were perceived to afford more physiological health benefits mainly as a consequence of the provision of more dedicated space for physical activity within a safer environment with better air quality. Findings suggest psychological benefits developed as a result of the personal meaning of parks and natural spaces and the resultant emotions that were evoked. Perceived lack of safety, environment pollution and negligence affected potential bio-psychosocial benefits of urban parks. Lack of perceived safety evoked feelings of

insecurity, stress and fear that had a negative influence on the use of urban parks. Policing and maintenance of urban parks were documented as important factors for increasing use and providing relaxing environments for health and leisure.

Participants were particularly concerned with the human pollution effect (i.e., through noise and cars), within urban city environments but understood the need to commute for the commercial and entertainment resources available in the city. Findings suggest that more effort should be made to create more enjoyable urban environments with a view to investing and/or encouraging the development of 'greener' city spaces (also CABA, 2006). Specifically, local authorities (or similarly aligned organisational bodies) should consider the adoption of green activity initiatives to increase physical activity levels and mental wellbeing (related to stress and deficient attention capacity) within the city environment. Findings suggest a positive relationship between bio-psychosocial health and access to urban parks and open green spaces in comparison to the city centre environment, although the city centre does provide a different type of interest and stimulus that can be positive.

In the current study participants cited particular childhood experiences as an important time period to have contact with nature and developing pleasant learning opportunities through what the park and natural environment can offer (i.e. exploration and opportunities for physical activity). As concurrent with some participant viewpoints, it can be assumed that reduced childhood experiences of park and natural environment use could have an effect on long term generational use (Ward Thompson et al., 2004). Consistent with previous research, participants appeared to be aware of the personal benefits gained through the natural features of the urban park compared to the city environment (Chiesura, 2004).

Findings supported existing theories relating to the bio-psychosocial benefits of natural environments (Ulrich, 1983; Wilson, 1984; Kaplan & Kaplan, 1989; Frumpkin et al., 2004). Whilst it is clear ART and SRT are applicable to the qualitative accounts of study participants, the psychological process and related physiological benefits that natural environments afford have only been theorized from a cognitive (Kaplan, 1995) and evolutionary (Ulrich, 1983) viewpoint. Both theories recognize the importance of innate

needs involved with nature, but neither directly investigates the nurture argument of how learning affects our views on nature.

This study suggests that personal affiliation (i.e., created through nostalgia of pleasant experiences and familiarity of place) and physical connection with a variety of natural environments (that is free from human destruction and negligence) is influential in gaining maximum physical and mental wellbeing. Although there is now evidence to support ART, SRT and the Biophilia hypothesis, social barriers that may impede access to parks are not fully considered by the theories. Whilst there are clear bio-psychosocial benefits associated to being in natural environments, it is clear people will only access such places if they feel safe to do so. Perceived and actual threats particularly associated with youth cultures can discourage use by other social groups. Whilst financial investment in parks and open green spaces is vital, initiatives also need to readdress public use of these spaces to encourage social norms and cultures that do not discourage any social group.

5.5. Phase Two Overview

Findings support previous research that access to urban parks and natural green spaces are important for bio-psychosocial health. Incorporating natural features within the city increases the aesthetic appeal and provides an opportunity for viewing nature that can be beneficial for health. The main findings of the current study include:

1. A significant reduction in BP was present during and after walking on a treadmill to the park scene in comparison to the city scene. As BP has been identified as a biological response to stress, this finding suggests park environments generally reduce stress output (i.e. when negative social factors like anti-social behaviour are not present).
2. Cultural and social experiences influence how and why people use parks and city environments. The city was typically viewed as a place for specific tasks, whereas the parks were seen as places for recreation and personal wellbeing. City landscapes that incorporated natural features were identified as features that promoted a healthy city.
3. Participants expressed positive emotions and spiritual connections to parks and natural spaces within the city environment, with experiences of stress reduction and attention restoration described (which support both the SRT and ART).
4. Whilst the current study findings support ART, SRT and the Biophilia Hypothesis, they do not take into account cultural and social barriers that can prevent access to parks and open green spaces.
5. Although the city did evoke some negative emotions, participants drew positive associations to the historic value (especially in architecture) and the regeneration of the cityscape.

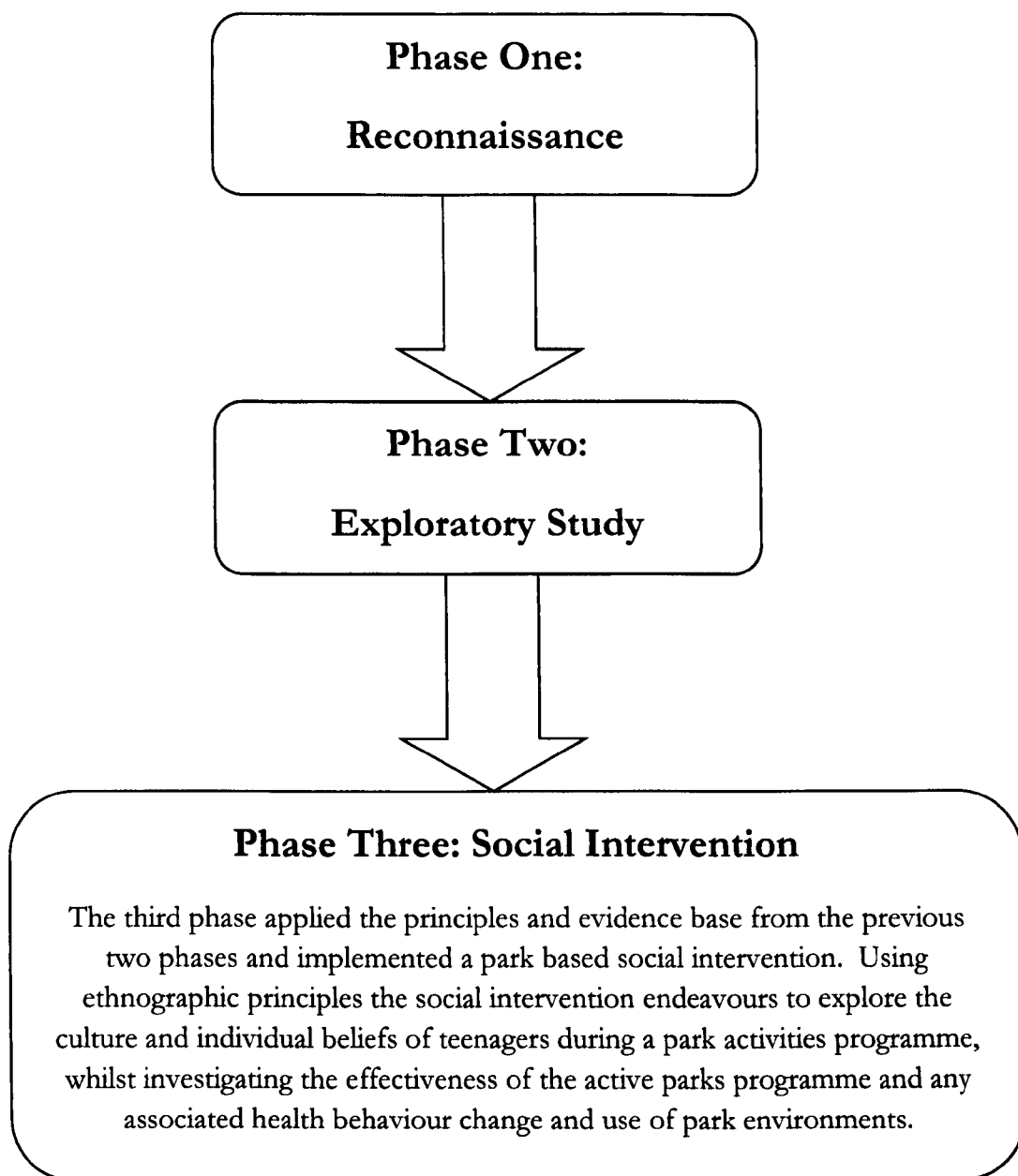
With a primary thesis focus on Liverpool parks and open green spaces, this study suggests research needs to concentrate on whether reducing social and cultural barriers to park access would increase utilisation of park environments by all social groups. In particular the perceived threat from congregated teenagers who are also associated with antisocial and intimidating behaviour in the park environment needs to be addressed.

Chapter Six:

Social Intervention

'England's natural green space... provides an opportunity to improve health and reduce rates of 21st Century diseases. Used in the right way, it represents our Natural Health Service: a treatment which is cost effective and free at the point of delivery.'

Natural England, 2010. P2.



6.1 Introduction

This chapter describes the process and outcomes of an intervention study aimed at encouraging teenagers to use parks for physical activity pursuits and discouraging anti-social behaviour. The study incorporates ethnographic principles as a means to engage with the teenage group and develop an understanding of their experiences and views of park use, physical activity beliefs and how they participate within the park based intervention. Creative writing was adopted to story the researchers experience and findings of this study.

6.1.1 The benefit of nature for children and teenage development

Participant accounts from the exploratory phase described play and interaction with natural environments during childhood and adolescence as an important time to connect with nature for physical activity and development purposes. Findings suggested that while theories relating to the benefits of nearby nature and park environments have biopsychosocial benefits, social and cultural barriers can prevent access and use of these resources. In particular, perceived and actual safety as a result of teenage use of parks for anti-social behaviour was emphasized as a concern for participants. In some instances teenagers were also held responsible for the destruction of park property, which again can effect usage.

Similar to adults, a connection with natural environments for physical activity can have biopsychosocial benefits for children and teenagers (Maller et al., 2002; Louv, 2005; Ward-Thompson et al., 2006). The notion surrounding the *need* for nature connectedness during human development is supported by research detailing the benefits of natural environments on personal and social wellbeing (i.e. Faber Taylor et al., 2001; Bell et al., 2003; Louv, 2005). For example, Bingley and Milligan (2004) propose a link between outdoor play in natural settings during childhood and mental health, wellbeing and nature connectedness in adulthood. They argue that *“woodland and forests can provide certain therapeutic qualities that a young adult may use to alleviate stress and mental health problems”* (p. 74). This further supports the Biophilia hypothesis and our innate need for nature (Wilson, 1984).

In spite of known benefits, the last few decades have seen a fall in the number of children interacting in natural environments, with play and leisure entertainment now predominantly

centred in the home (Valentine & McKendrick, 1997). Modern social and cultural influences have had a detrimental effect on children's participation in the outdoor environment (Travlou, 2006). Louv (2005) explored the modern social issues that can affect child and teenage relationships with nature. Described as 'nature-deficit disorder', Louv (2005) argued that a lack of contact or affiliation with nature during this time is detrimental to development into adulthood. A lack of affiliation or appreciation for natural places can then contribute to the destruction and vandalism of natural environments by children and teenagers (Louv, 2005).

With growing concerns surrounding poor mental health, rising obesity and lack of physical activity during child and teenage development (Louv, 2005; Faber Taylor & Kuo., 2006), activities that encourage park use for physical activity pursuits could be a positive approach to help alleviate non-communicable disease among this population. Furthermore such schemes have the potential to re-address how parks are used (particularly by teenage groups) to help break down actual and perceived anti-social and criminal behaviour (Ward-Thompson et al., 2006).

6.1.2. Teenage engagement with urban parks and green spaces

As described previously, the use of urban parks by teenagers is increasingly being perceived as anti-social activity, which can cause fear and uncertainty for other parks users. Cahill (1990) provides one explanation for this:

"The very presence of groups of preadolescents or adolescents in a public place is apparently considered a potential threat to public order [...] while adults treat younger children in public spaces as innocent, endearing yet sometimes exasperating incompetents; they treat older children as un-engaging and frightfully undisciplined rouges. Among other things, the very violation of public etiquette that adults often find amusing when committed by younger children are treated as dangerous moral findings when the transgressor is a few years older."
(p. 339)

Whilst this statement suggests that perhaps sometimes adults are too quick to judge the presence of teenagers in a park environment, conversely Tekin (2010) argues:

“...of all the contexts in an adolescents life, leisure has great potential for personally meaningful activity, enjoyment, autonomy, self-determination, becoming connected to community, developing competence, forming durable relationships with adults, voicing opinions, being listened to, feeling a sense of belonging and mattering, and having control over ones actions. On the other hand, it is also a time of activity that goes against conventional norms, such as substance misuse, crime and deviancy, excessive gambling, and so on. Thus, it is a natural context for prevention programs.” (p.641).

Tekin (2010) suggests that while teenagers do use parks and urban green spaces for recreational purposes, they have also been used to test the boundaries of undesirable and illegal activities (Bell et al., 2003). Reasons cited for anti-social behaviour in public spaces include boredom, alienation, family and community breakdown, lack of leisure opportunities and unemployment (Geason & Wilson, 1990). Alternatively, structured programmes help to reduce juvenile crime and delinquency as they offer alternative activities for children and youth during their out-of-school time (Quinn, 1999; Eccles & Gootman, 2002). As a result, strategies aimed at dealing with anti-social behaviour includes initiatives to promote healthy recreational activities that engage teenagers in constructive, positive use of the public green spaces and the park environment (Ward-Thompson et al., 2006).

6.1.3. Addressing government targets in project design

As outlined in the literature review, in 2007 the government set a number of PSA targets designed to set out policy priorities. These included:

- PSA 12: Improve the health and well-being of children and young people. (HM Government, 2007a)
- PSA 18: Promote better health and wellbeing for all. (HM Government, 2007b)
- PSA21: Build more cohesive, empowered and active communities. (HM Government, 2007c)

Within the design of the parks intervention each of these PSA targets were considered to ensure the project ‘fit’ with local government aims and objectives. When addressing whether the parks project had been effective, PSA targets were taken into consideration.

Beyond the PSA's in 2006 the government's Respect Action Plan (Home Office, 2006) reported that youth crime and anti-social behaviour not only impacts negatively on local communities, but also costs £3.4 billion a year. The report cites factors such as poor parenting, school exclusion, living in deprived areas and drug/alcohol misuse are associated with anti-social behaviour. The teens targeted in the programme are expected to be effected by one or more of these factors.

6.1.4. Engaging teenagers for the purpose of a researched intervention

In comparison to other population groups, less attention has focused on teenage use of parks and urban green spaces for physical activity and wider health purposes (Ward-Thompson et al., 2006). Whilst early childhood experiences are important indicators of park and natural environment engagement throughout the life cycle (Louv, 2005), the use and meaning of parks and urban green spaces to teenage groups tend to focus on other user groups perceptions of (often negative) teenage behaviours in the park environment (Tekin, 2010). Little attention has been given to young people's own accounts and perspectives of urban parks and natural environments (Barrett & Greenaway., 1995). Furthermore, with a decrease in physical activity levels from childhood into adolescence, there is a need to engage this group to help sustain participation in activities they are likely to participate in during adulthood (Sallis, 2000; Ogden et al., 2002). Within the present study, engaging teenagers partaking in a structured activity programme provided the researcher the opportunity to engage with participants during activities and gain insight and understanding of their perceptions and use of parks and urban green spaces within Liverpool.

6.1.5. Study aims and objectives

The intervention study will take into account all aims of the thesis and objective 3. These include:

- Aim 1: Assess the extent to which the urban environment influences physical activity participation.
- Aim 2: Ascertain whether bio-psychosocial responses are improved within an urban park compared to an urban city environment.

Aim 3: Develop an understanding of an individual's psychological and social experience of accessing urban parks and green spaces.

Objective 3: To deliver a park based intervention, implementing knowledge derived from the scoping and exploratory study phases.

Using ethnographic principles the social intervention phase endeavours to explore the culture and individual beliefs of teenagers during a park activities programme, whilst investigating the effectiveness of the active parks programme and any associated intentions to change health behaviours and use of park environments. More specifically this Study aims to capture some of the actual experiences of teenagers that occur during a physical activity intervention, as well as those occurring in other domains of their life that can influence the use of parks.

A youth centre in Liverpool provided the opportunity to engage with teenagers in an urban park based physical activity intervention. The researcher worked in collaboration with the centre to secure funding to develop an interactive programme designed to engage participants in a physical activity programme located in a variety of parks across Liverpool.

6.1.6. Adopting ethnographic principles

A core principle underlying the change of physical activity and health behaviours is to understand and engage with individual experiences, perspectives and values in order to consider their needs. On many occasions research and/or interventions fail because of the lack of understanding of cultural and ideological beliefs of (typically) hard to reach groups. The same hard to reach populations tend to be those who are most at risk from non-communicable disease, with poor bio-psychosocial health (Mitchell & Popham, 2007; Marmot, 2010). Ethnography provides one method of learning about a culture from the people who actually live in that culture (Spradley, 1979). The aim of using the qualitative methodology in this case was to learn about the process rather than the outcome to describe, explore, and explain the phenomena under examination (Marshall & Rossman, 1995). Recording the experiences and perspectives of targeted individuals will help develop

knowledge on how teenagers engage with and perceive their environments. This process of learning can offer insight into often idiosyncratic behaviours.

The laboratory setting adopted in the exploratory phase was useful in limiting the number of factors that influence bio-psychosocial health to measure causal behaviour mechanisms during phase A of the study, however the approach does not provide the opportunity to fully understand human behaviour in a complex 'real-life' setting (Jager & Mosler, 2007). The ethnographic principles adopted within the social intervention offers an alternative approach to studying behaviours in complex social settings. As Pinder and colleagues (2009), contend,

'the epidemiology of health-promoting environments is a relatively new field there is a crucial role for qualitative research as a contributor, to help begin to unpack the core concepts along these complex causal pathways' (p.349).

Adopting ethnographic principles within the intervention study provided the opportunity to offer insight into the complexities involved in programmes that aim to change behaviours for individual bio-psychosocial benefits (in this instance within urban park environments).

This study explores individual experiences and engagement of participants in the park project, taking into consideration the project processes and management and its effect on planned outcomes (Marshall & Rossman, 1995). By undertaking engaged qualitative research with participants, this study goes beyond many previous intervention evaluations that tend to focus on demographic characteristics and participant levels for effectiveness criteria (Chiesura, 2004). For example, the routine data required for this project by the funding body can be found in Figures 6.1 and 6.2. These figures show that the level of data required for evaluation purposes is largely demographic, with nothing detailing the real impact of the programme on the participants. In contrast, by adopting ethnographic principles and using observation and interviewing techniques, the researcher aimed to capture the meanings participants attach to their knowledge, behaviours, and actions within their own cultural context of the project (Germain, 1993). The process of incorporating in-depth qualitative methodologies had the potential to provide an important understanding

for local practitioners and policy makers working with teenagers or park management when considering how to make parks more accessible for leisure and physical activity purposes. More specifically the process may provide some insight into how to influence the health and social behaviour in teenagers from deprived communities in relation to their physical activity habits and use of park environments.

Liverpool Active City - Active Parks Programme 09-10 - Monitoring Summary Form

Organisation name

Youth Services

Name of Project/ Event

Knotty Ash Active Parks Project

Start date

15th June 2009

USING YOUR REGISTER, PLEASE ENTER NUMBER OF PEOPLE IN EACH CATEGORY THAT WERE INVOLVED IN YOUR ACTIVITY/ EVENT
THE SAME INDIVIDUAL CAN ONLY BE COUNTED ONCE

	Male	Female	Disabled	Non-disabled	Aged U16	Aged 17-24	Aged 25-44	Aged 45+
Participants (in phys. activity)	6	5			11			
Qualified Coaches	2	2					4	
Volunteers	1						1	

Ethnic groups;

African

Caribbean

White UK

Black UK

Bangladeshi

Pakistani

Indian

Somali

Chinese

Other

Participants (in phys. activity)										
Qualified Coaches			4							
Volunteers			1							

Residency;

L1

L2

L3

L4

L5

L6

L7

L8

L9

L10

L11

L12

Participants (in phys. activity)											
Qualified Coaches											
Volunteers			1								

L13

L14

L15

L16

L17

L18

L19

L24

L25

L26

L27

Other

Participants (in phys. activity)		10									1
Qualified Coaches											
Volunteers											

Activity levels – PARTICIPANTS ONLY

Before the project/ event started, how many of your participants exercised for 30 mins.....

Less than once a week?	Once or twice a week?	More than 3 times a week?

Figure 6.1: Funding required monitoring form

Liverpool Active City - Active Parks Programme 09-10

Register (Compulsory)

PLEASE USE THE KEY WHEN COMPLETING THE REGISTER – REGISTRATION FORMS MAY BE USED IN ADDITION

Project/ Event

Knotty Ash Active Parks

Start date

15th June 2009

Project Co-ordinator

John Bligh

Full Name	Role (P, C or V)	Age	Gender (M or F)	Ethnicity	Disability	Post code	Activity level (1, 2 or 3)
XXXXX	P	15	M			L14	
XXXXX	P	15	M			L14	
XXXXX	P	15	M			L14	
XXXXX	P	15	F			L14	
XXXXX	P	15	F			L14	
XXXXX	P	13	F			L14	
XXXXX	P	15	F			L14	
XXXXX	P	14	M			L14	
XXXXX	P	15	F			L14	
XXXXX	P	15	M			L28	
XXXXX	P		M				
XXXXX	V	25	M	White UK	N/A	L3 2ET	3

Key

Role	Enter 'P' if person is a Participant Enter 'C' if person is a Qualified Coach/ Instructor Enter 'V' if person is a Volunteer
Ethnicity	African/ Caribbean/ White UK/ Black UK/ Bangladeshi/ Pakistani/ Indian/ Somali/ Chinese/ Other
Disability	Please state name of disability
Post code	First part only eg. L1, L12, L19 etc.
Activity level	Enter '1' if the participant usually exercises for 30 mins less than once a week Enter '2' if the participant usually exercises for 30 mins once or twice a week Enter '3' if the participant usually exercises for 30 mins 3 times or more per week Exercise can be classed as walking, gardening, cycling, any type of fitness activity or sport

Figure 6.2: Funding required registration form

6.2 Methodology

6.2.1. Sample selection and participant recruitment

Purposeful sampling with elements of snowballing was adopted as the participant recruitment technique for this study (Patton, 1990). Whilst random sampling may have avoided bias, it is not the most effective sampling technique for building an in-depth understanding of complex issues related to human behaviour of the targeted group (Marshall, 1996). Purposeful sampling provides the opportunity to select information-rich participants who will elucidate the research questions (Patton, 1990).

At the conclusion of the intervention a totally of 11 teenagers were recruited and had participated in the intervention. All were aged between 13 to 15 years of age and were regular attendees at the youth centre (at least once during a typical week).

Participant recruitment followed these subsequent steps:

1. In the first instance youth centre staff, associated with the intervention, were requested to invite teenagers who were known to them and regularly access the centre to learn more about the park based physical activity intervention. In this instance participant selection was stratified according to their attitudes and beliefs (Marshall, 1996). Specifically, staff identified teenagers who were not physically active to recommended levels and were likely or known to use the park environment for antisocial purposes (e.g. underage drinking and smoking). As staff had a familiar and usually open professional relationship with the majority of regular centre users they were easily able to fulfil the criteria.
2. Staff provided potential participants with a brief outline of what the programme would entail and invited them to a meeting with the researcher where they received further study information and were provided with the relevant forms required to participate. At this stage ten teenagers were invited, with eight attending the initial meeting. Following the meeting seven participants were recruited. At this stage one of these participants informally invited a friend to join, whom staff confirmed also met the criteria for participation. Therefore by the first planning meeting eight participants had been recruited.

3. An unforeseen event meant that the main staff member who was assisting with the intervention and participant recruitment left before more teenagers were identified to partake in the intervention. Therefore a further two teenagers were not recruited until after the second activity session, with a third 'recruited' by one of these teenagers following the forth activity session. The recruitment of the first two teenagers was an impromptu action from a staff member, which meant they did not meet the physical activity requirement. This was also the case for a third teenager, who joined the programme on an invitation from one of the latter recruits.

6.2.2. Building participant rapport

To gain an understanding of the meaning participants attach to their knowledge, behaviours, and actions to physical activity and park use, it was important that the researcher built rapport with a social group that are perceived as difficult to gain access to. The youth centre staff (practitioners) acted initially as gatekeepers because of their own relationship and knowledge of each of the programme participants (Hammersely & Atkinson, 2007). Although this facilitated initial contact with the group, it was important for *me* as the researcher to establish my own personal contact to develop insight and context sensitivity with participants (Patton, 1999). In line with Patton's (1999) recommendations for engaging with participants, I needed to use empathetic neutrality. As a starting point I ensured meetings and interviews were held in the youth centre (a setting known to participants) and included youth centre staff in the intervention delivery that participants were familiar with. Interviews were also conducted in an informal manner at the youth centre in an attempt to try and create a sense of ease. It was hoped this setting would make participants feel comfortable and therefore talk more freely in the interviews and during interactions with the researcher.

It was hoped that building rapport with the participants would facilitate more accuracy and truthfulness in their responses during interviews and informal interactions with the researcher. This approach encourages an accurate perspective for the study narratives (Krane & Baird, 2005). Patton (1999) discusses several topics related to building rapport with qualitative study participants, including a holistic perspective, personal contact and insight, unique case orientation and empathetic neutrality. Specifically I wanted to achieve a holistic view of my participants through multiple encounters alongside face to face

interviews. This method also guaranteed personal contact with participants and an opportunity to gain different insights from each domain (i.e. fieldwork and interview). I sought to gain unique case orientation by paying close attention to each participant, observing them as individual characters and how they interacted with others and within the context of the intervention and beyond. Empathic neutrality was personally challenging, but I aspired to achieve this through my knowledge of how a qualitative researcher should objectively conduct themselves in a fieldwork setting.

6.2.3. The researchers personal positioning

It is hoped that by outlining the researcher's formative experiences, the reader will gain an understanding of the researchers personal positioning within the context of the study. As the researcher in a study adopting ethnographic principles, my personal positioning would soon become as important to the findings as the participants and staff being observed (Foley, 2002; Hammersely & Atkinson, 2007). In addition to the diary and interview transcripts it was important for me to recognise that I was to become a factor within the study. To account for this 'factor' I became increasingly aware of how I could personally affect participants, in particular how they responded and acted around me. I made a conscious effort to take into consideration my personality, background, skills and any prejudices and beliefs that could influence the study (Hammersely & Atkinson, 2007). Instances when these factors may have influenced participant behaviour and responses were recorded in the reflective diary. As Foley (2002) proposes, self-critical awareness encourages the researcher to realise their limitations as an interpreter of the data and helps to reduce any beliefs surrounding absolute truth and objectivity of findings. Employing self-critical reflexivity helped to position the researcher (and narrative author) and become another resource for understanding the ethnographic experience (Glesne & Peshkin, 1992; Sparkes, 1998).

The most prominent of my personal beliefs that might impact the intervention surround my perception of teenagers in the modern era. Like the participants from phase two of this research, I find teenage groups (particularly in a park setting) most likely to be involved in anti-social behaviour, which raises personal safety concerns. These beliefs are based on my own experiences as a teenager and observations of these groups throughout my adulthood. My personal view on teenagers today are enforced by negative experiences of sports

coaching in schools, where there was generally a lack of respect towards authority figures as well as each other, and poor behaviour in general. Moreover I am concerned about my perceptions of the current ideologies teenagers hold towards consumerism and in particular instant wealth, popular status and the owning of possessions as the route to happiness. As Fromm (1978) so eloquently puts it when describing the difference between societies centred around *persons* and those centred around *things*, he states that,

“the having orientation of Western industrial society, in which greed for money, fame and power has become the dominant theme of life.” (p. 28-29).

Although Fromm's philosophy was published in the 1970's, his writings are perhaps even more relevant within today's society, and even more so among the younger generations who are now being raised in the '*having*' mode (Fromm, 1978). With such beliefs I knew it was even more important for me to be aware of my personal subjectivity and approach the study with an 'open mind'.

Conversely, I was also aware of how I might be perceived by the participants (and even the staff) and how that might affect their behaviour (Hammersely & Atkinson, 2007). As a well-educated 'southerner' working at Liverpool John Moores University, I was aware that I would most likely be approached with caution and someone they might not believe they could relate to. I knew it would take some time for them to consider me as someone they can act more naturally around or even talk to openly within interviews. This was part of the reasoning behind how the study was designed with an interactive planning phase included between the participants and researcher to help build rapport. It was hoped this time would assist in the participant and researcher relationship and help dispel any potential preconceptions. Additionally, I disclosed personal details as a way of positioning myself as someone that participants and youth centre staff might be able to identify with. This included disclosing details of my Liverpool family and heritage (as a way of positioning myself with an understanding of Liverpool) and details surrounding my teenage years in a one parent family living on benefits (to show I could relate to deprivation and some of the participants current home life). Although in some ways this made me more involved with the group than I would have liked, it felt necessary to gain access into what was a very closed and wary group of individuals.

6.2.4. Setting the scene: The youth centre

The following paragraph provides some local context surrounding the youth centre and the activities it provides. The centre is based in one of the most deprived neighbourhoods in the England. The main aim of the facility is to provide a safe environment to engage young people aged between 13 and 19 years of age in activities and programmes that encourages personal development and self-awareness. The centre itself has recently undergone a refurbishment in order to facilitate a number of existing and new activities (including the performing arts). The building has a secure entry system and is fully protected with shutters and bars on doors and windows (which are in full use when the building is closed). As you enter the building the first main room provides a bright and open area to ‘hang around’, with a pool table, leather effect sofas and a staff monitored area for refreshments. A flat screen television and stereo provides additional entertainment, whilst the walls are partly covered by motivation and health behaviour posters (e.g. campaigns surrounding safe sex, knife crime, drugs and counselling services). Beyond this room is a small long classroom with a long desk and benches down each side. Windows along the length of one of the walls look out onto a main dual carriageway with Springfield Park³ across this road. One of the main features of the refurbishment is a music arts centre housed within a small auditorium (funded in 2009 by the Department for Culture, Media and Sport to provide opportunities for youths in deprived communities). Although the music arts centre is now considered the main feature of the facility, it is the communal areas that were predominantly accessed by the study participants. These spaces were also utilised for group planning sessions prior the start of the park activities.

6.2.5. Intervention design and procedures

Prior to data collection ethical consent was sought and granted by Liverpool John Moores University ethics board. Participant information sheets, the Physical Activity Readiness Questionnaire, parent/guardian consent forms and participant ascent forms were distributed prior to the active parks intervention. A series of meetings over a four month period with youth workers from the youth centre provided the opportunity to develop a study structure and timetable for the intervention (see figure 6.3). Intervention practices

³Springfield Park is a 22 acre public park in Liverpool. The park has a children’s playground, two football pitches and a tennis court, but is predominantly green space with crossed paths.

were adopted and potential barriers (for example transport to park venues), were addressed at this time. It was agreed that the active parks intervention would be managed by staff at the youth centre over a 14 week period. This time period included all of the originally planned data collection and an 8 week period of physical activity sessions to take place within park settings. The main activity timetable was scheduled over the school summer holiday break (see appendix nine for schedule).

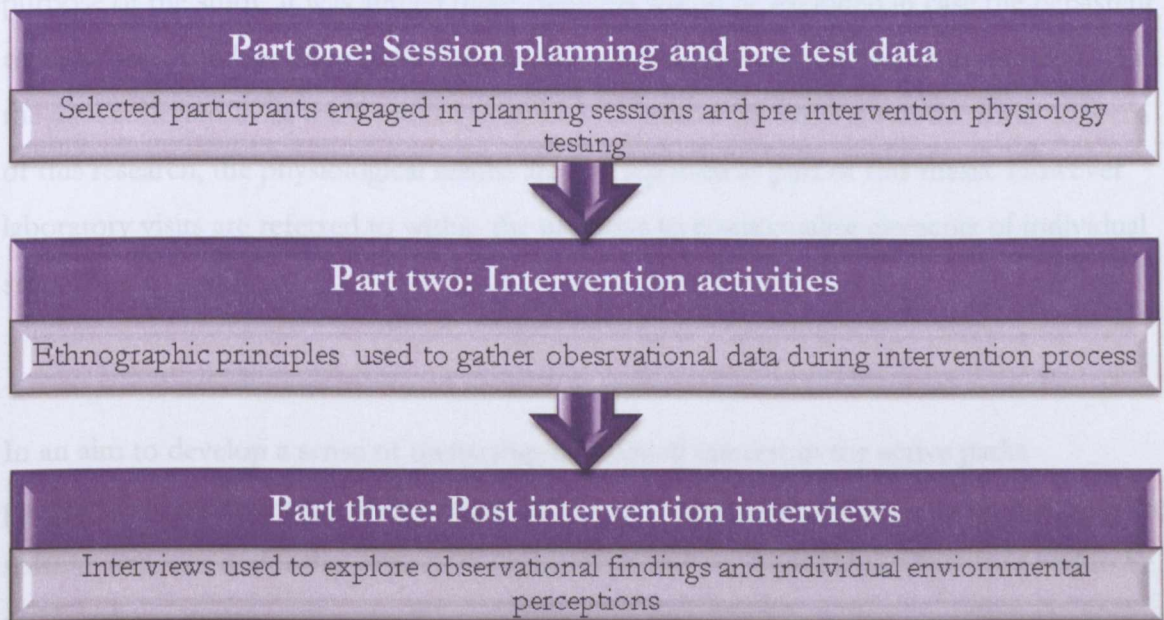


Figure 6.3: Intervention study phases

6.2.5.1. Part one: session planning and pre-test data collection

In the original study design it was agreed between the funding body, researcher and youth centre staff that physiological tests would be incorporated into the study design to record any physical effects the park programme might elicit. The funding body believed this information would be beneficial when reporting findings back to key stakeholders. Therefore a testing phase was included within the original study design. As LJMU has extensive equipment that allows for advanced physiological testing the following tests were scheduled pre and post intervention:

- VO_2 peak test performed on a motorised treadmill
- Body composition assessed using a DEXA body scan.
- Anthropometric Measurements (including height and weight)

- Physical activity measurement using accelerometers for one week pre and post intervention

Although the testing phase has been included within the study methodology, a lack of compliance led to an agreement that this data would not be included in the study findings, with the post testing period abandoned due to low pre-test and intervention compliance. Additionally it was felt that as the researcher I was creating barriers with participants in trying to consistently contact them and arrange the lab visits. As this was not the main purpose of the study, it was agreed these elements would be excluded in case the persistent requests for attendance was deterring participants from the overall parks intervention. As the data collected from the 5 participants who did attend lab visits is not the main concern of this research, the physiological results are not reported as part of this thesis. However laboratory visits are referred to within the narrative to contextualise elements of individual stories.

In an aim to develop a sense of ownership and vested interest in the active parks programme (Walker et al., 2005; Larson, 2011), participants were charged with planning the session activities under the guise of the researcher and youth workers. Activities had to be viable, within budget and accessible to all participants. The researcher provided a profile of potential activities that could be carried out in a park environment to aid discussion and idea generation. Prior to the planning phase it was agreed between the researcher and youth centre staff that the active parks programme would comprise of a minimum of two, 1 hour session per week. As a result of this process, final activities included climbing, traditional sports, woodland based games, mountain biking and structured classes including boxercise and yoga.

6.2.5.2. Part two: Intervention activities

During the eight week intervention period participants were expected to attend two one hour physical activity sessions each week. Resources such as transportation was organised by staff from the youth centre to reduce barriers and participants were all collected and returned to a central location that was known to them. Activities were planned to take place in Sefton Park, Calderstones Park, Reynolds Park, Croxteth Park; Woolton Woods and Otterspool Park and Promenade. Although plans were made for activities in all of

these locations (including 'risk assessments' for all venues), due to adverse weather conditions not all of these venues were accessed during the 8 week programme of activities. Park and venue descriptions are included within the narrative to aid the readers understanding of the location at that time of events.

6.2.5.3. Part three: Post intervention Interviews

The post intervention interviews (n=5) and two informal group discussions (n=9) enabled information on perceptions and motivations for park use to be explored in line with the data gathered from the ethnographic process (Fetterman, 1998). The group discussions were included as a replacement for an activity session that was cancelled due to adverse weather conditions, while post intervention interviews took place at the youth centre between one to two weeks after the conclusion of the programme. Both were included to gain a greater understanding of individual participation throughout the intervention and provide a context of how parks and public spaces are currently used by teenagers. The main issues explored in the discussions and interviews are detailed in appendix ten. Interviews were semi-structured allowing the interviewer to explore emerging themes as well as salient issues around the physical activity, park use and retrospective barriers and facilitators to the successful implementation of a park based physical activity intervention for teenagers. The interviews were conducted face-to-face at youth centre and transcribed verbatim.

The structure of the interview schedule was underpinned by findings from phase two of the research and theoretical stances pertinent to the study aims and objectives. This included exploring the participant perceptions and participation of physical activity (DoH, 2004; Government Office for Science, 2007) and their current relationship with parks and natural green spaces (Ulrich, 1984; Wilson, 1984; Kaplan & Kaplan, 1989). The interview also comprised collective messages from relevant research findings regarding the use of parks and natural environments by teenage groups (Louv, 2005; Ward-Thompson et al., 2006), which focused on how participants currently use the park facilities. Finally, the process and participation of the intervention was considered. The aim of this question set was to gain feedback and enlighten the researcher observations from the participant perspective. Additional questions relating to project feedback and attendance were added

to this section after the intervention phase as they emerged as significant themes throughout the intervention and required more detailed context from participants.

6.2.6. Recording observations and interactions

A research diary of observations and reflexive experiences were recorded by the researcher directly after sessions and if convenient at times during session activities. In addition to the diary, the researcher kept a dictaphone to hand to record details of any relevant conversation or observations (Tedlock, 2000). Any recording during the sessions was carried out when the researcher was away from participants (e.g. during a toilet break) where the process could not impede or distract from participant activities. It was important that records of the researchers' observations, including reflective practitioner notes, occurred as soon as possible after sessions were complete to aid recall while the experiences were recent (Krane & Baird, 2005). The production of field notes and transcriptions became the first level of analysis within the narrative formation (as this was not a neutral activity but also required thought provoking interpretation at this stage). Throughout this process it was important to remain close to the data to ensure a true representation of the story was presented (Janesick, 1994), whilst also understanding the story would not be free from researcher bias as the observer and story teller of the narrative (Okely, 1994; Richardson 2000; Tedlock, 2000). Throughout the analysis the researcher adopted the method of closely reading the material, identifying key storylines to understand participant practices and underlining key themes (Sandelowski, 1995).

To explore and interpret the findings across the methodology, creative writing was incorporated to story the participant and researcher experiences and highlight key themes that emerged across the park project (Tierney, 2002; Colyar, 2004). Creative writing is a way of presenting findings that relate to a series of events and to provide meaning and understanding to the reader. As Tierney (2002) argues, qualitative researchers need to *"broaden the narrative strategies we employ so our texts are built more in relation to fiction and storytelling, rather than in response to the norms of science and logical empiricism"* (p. 385). In this instance storytelling is adopted as the narrative process in an attempt to detail actual experiences within a real world setting, disclosing influences on an intervention that might otherwise be overlooked with a more structured scientific evaluation (Tierney, 2002). The language

embraced within the creative writing provides an interesting text that aids the readers understanding of the study context and how the findings emerged (Richardson, 2007).

The resultant narrative reflected the intervention engagement with programme practitioners and participants during the active parks intervention. A breakdown of the narrative construction is presented to the reader at the start of the 'Narrative and Reflective' section of this chapter.

6.3 Narrative and Reflections

6.3.1. Representation of the data: Narrative timeline and reflective stop-offs

The following narrative reflects the engagement with programme practitioners and participants during the active parks intervention. The researcher participated in the intervention activities with the teenage group while conducting observations (Hammersel & Atkinson, 2007). The narrative itself represents a reworking of observations and experiences of the researcher during the intervention period, incorporating a first person writing style to reflect the ethnographic principles of investigation (Tedlock, 2000; Krane & Baird, 2005; Colyar, 2009). Relevant extracts from participant interviews are included to provide more detail and context for the inductive and deductive discussion. Interview extracts will be presented in grey shading within the narrative to differentiate from observations and experiences of the researcher derived during the intervention (see figure 6.4). Including both narrative and interview extracts within the same passage (where necessary) provides the reader with the opportunity to then also hear the characters’ voices in the current context of intervention activities and engagement (Tierney, 2002). Finally, researcher reflections recorded at the time of the event are represented in the main passage of text in bold italics (see figure 6.4). Researcher reflections largely represent a reflective account of experiences encountered at that time. The change in text format indicates to the reader that the researcher is talking directly to them, disclosing feelings and thoughts regarding the unfolding events or characters at the time of the narrative (Tierney, 2002). The aim of the reflections are to aid reader understanding of the researcher’s experiences and assist with the development of the overall narrative.

Throughout the narrative there are 4 reflective stop offs. The stop offs provide an opportunity for the researcher to reflect and discuss any resultant themes from the preceding passage of narrative and interview extracts. This process is included to guide the reader in their understanding of the narrative in relation to the study findings.

Narrative text	=	Plain font
Interview extract	=	Plain font with grey shading
Researcher reflection	=	<i>Indented bold italics</i>
Reflective Stop-off	=	Bold text in text box

Figure 6.4: Passage text key

6.3.2. Emerging themes

Each passage of text and related reflective stop-off represents one of the main theme findings of the study. Participants and practitioners central to the emerging theme therefore become dominant characters within the narratives.

6.3.3. Positioning the ‘characters’

The following list details central characters featured in the narratives. Pseudonyms have replaced all programme participants names to maintain anonymity and confidentiality.

- The Researcher cum practitioner
 - Denise
- Youth Centre Staff (practitioners)
 - John - Senior Youth Worker
 - Carol – Youth Worker
- Liverpool John Moores University Student Volunteer
 - Craig – work experience and qualified coach
- Central intervention participants. Ages and deprivation percentiles (based on home postcodes) have been included to help establish an initial profile of intervention participants. Descriptive details of each participant are included within the narrative.

Participant	Age	Gender	Deprivation Percentile
Aaron:	15	Male	30 th
Steve:	15	Male	30 th
Lee:	15	Male	40 th
Trina:	15	Female	40 th
Paula:	15	Female	10 th
Ria:	14	Female	10 th grandparent’s home
Sarah:	13	Female	10 th
Pippa:	15	Female	30 th grandparent’s home
Chris:	14	Male	10 th
Phil:	14	Male	10 th
Dave:	15	Male	10 th

Table 6.1: Participant profiles

6.3.4. Constructing the narrative

Over the intervention period the researcher followed ethnographic principles by recording session progression and specific events that effected the intervention and behaviour change

(Tedlock, 2000; Hammersely & Atkinson, 2007).). As already outlined, the reflective diary was completed during and immediately after planning and physical activity sessions (Krane & Baird, 2005). During the intervention participants regularly disclosed details that provided insight into the culture they live in and individual and external influences that affects healthy behaviours and use of parks and urban green spaces. In combination with the interviews and groups discussions, an eclectic form of creative writing was used to establish participants understanding of the main programme concepts of physical activity and the park environment, and how these were influenced by their personal beliefs and social environment.

Event specific stories that impacted the intervention and participant beliefs were identified from the session diaries. Within each analysis story specific elements included: orientation with an introduction to the place, time characters and the situation; a focus to the story; evaluation of the story conveying meaning and interpretation from the story teller (i.e. researcher); and a story ending that returns the narrator and reader to the present (Labov & Waletzky, 1972).

“The Practitioner”

5th March 2009: Youth Centre

It's the second planning meeting with the youth workers. Three of us are sat rather awkwardly in a semi-circle on odd chairs in a small office above the main youth centre. By odd I mean John and Carol (the two youth workers aka 'practitioners') were both sat on computer chairs positioned at different heights, and me (the 'researcher') on a much lower classroom chair. Although it felt like an awkward space to have a programme planning meeting (highlighted when I tried to balance my thin notebook on my knee to write), the informal environment put me at ease with the two people who were going to get me through this intervention study! During the meeting I spent a large proportion of the time explaining to John and Carol the reasoning behind the intervention and talking in more detail about the theories surrounding the perceived benefits of physical activity in park environments. Both showed interest in what I was saying, and seemed engaged in the conversation with a number of questions regarding the theories and positive comments on how this would benefit the teenage groups they worked with.

It was important that John and Carol fully bought into the ethos behind the intended programme and didn't just see the intervention as an additional activity to add to the centres profile. This meant having some understanding with the theoretical reasoning behind why I was now sat with them talking about timetables and parks. I hoped this will help reinforce the message to potential participants and become the ethos behind the intervention and maybe even beyond.

As Carol leads me out of the youth centre, she states *“I think the active parks’ is going to be good”*. Despite watching the bus I wanted to catch pass by on the opposite side of the road, I still had a smile across my face; I was hoping the same!

Full of nerves I walk towards the doors of the youth centre. The anxiety was building inside me. I'm guessing some of my nerves were present because today was the first day I would meet the scheme participants. Although I'd already had months of planning meetings with Carol and John, tonight was the first night I would meet the potential participants for the active parks programme. Mind you, some of the anxiety might also have had something to do with the group of five teenagers congregated by the front entrance of the youth centre. Despite it being a very warm sunny evening, they were all dressed in black tracksuits. Three of them wore their jacket hoods up, with the other two both sporting clean shaven heads. As I approached, what had previously been a loud conversation, turned to whispers. I smiled at the lads and turned to press the buzzer to gain entry to the building. As I did the lads stopped talking altogether. I stood looking at the front door it felt as though all of their eyes were burning into my back. Thankfully the door quickly released so again I politely nodded behind me and went inside.

Having got through the main door I sign in and pass into the main communal area where I am relieved to spot Carol heading out from the classroom.

"Hiya you alright?" Carol shouts towards me

"Yeab I'm fine"

"Do you fancy a cuppa before we start? We won't open the doors for a short while yet."

I gratefully except the tea offer and sit nervously at the refreshment area. While Carol made the tea she explained she had set aside the classroom for me to meet with the teenagers she had approached to participate in the programme. It had previously been agreed that tonight would be about setting the scene, providing details of what the programme might involve and explaining the necessary paperwork that was required for the teenagers to participate. Hopefully a straight forward task!

I liked Carol. She is what I would describe as a *no-nonsense scouser* with a very stern character. She was short and very thin with wispy blonde hair and dressed in a very informal style usually comprising of tight fitted faded jeans, baseball boots and a casual t-shirt. Her large gold creole earrings looked far too big for her frame, but not out of place in the community she worked in. At a guess I would say she was in her late forties. You could tell she was a smoker from the whiff of cigarettes that surrounded her, verified by the fact that after most planning meetings she was quick to light up (off the premises of course). I

thought Carol was a little wary of me at first having come from the University with my southern accent, but actually during the programme planning phase I'd got to know her better. Before and after most meetings we'd share a few stories of work, holidays and drinking at the weekend. My dad was originally from Liverpool, and with family still living in the area, I used this piece of information to establish a common ground with Carol. Carol had grown up in Liverpool and from short snippets of conversation I gathered she hadn't the easiest of times in her working class roots. Despite having two working parents when she was growing up there was always a shortage of money. Work-wise, Carol was direct with questions when clarity was required and always delivered on anything asked of her. She had been the main person to select and engage with potential participants for the parks intervention. However it was now that Carol would drop a bombshell on me.

"By the way," Carol said nonchalantly leaning on the tea counter, "I'm here tonight and I will be here next week, but I'm moving to another centre so John is taking over with the project running."

My heart sank. I paused for a moment waiting for more information but when nothing but a stern face looked back at me I tentatively asked *"Why's that then?"* she looked directly at me and replied, *"I've got a senior youth worker role there, so I've gotta move really."*

I've just congratulated Carol on the new job and enquired about the new role. Selfishly I am gutted she is leaving as I have a feeling this might be a significant factor in the smooth running of the intervention and my integration with the group. Whilst John is a good bloke his organisational skills (highlighted when asked for information throughout the planning) are not as good as Carols!

Shortly after I had entered the youth centre, constant banging started on the front door and by the sound of it multiple hands were doing the banging. Carol was unmoved by the noise, explaining that this was usual and the youth workers didn't let the youths in until dead on 7pm. With the bangs continuing, around one minute before 7pm three more youth workers emerged and were quickly introduced to me. Although I would say a quick hello and a brief chat on odd occasions to each youth worker, I did not have any contact with them regarding the parks intervention.

Eventually the mad spill of noise and what I viewed as chaos came into the youth centre. As each teenager enters the centre they are expected to pay a small nominal fee to use the

premises for the evening. Instead of an orderly queue or system that would keep some sort of control for this process, the group crowd around the counter all vying to be the next person to sign in and pay. Despite being towards the back, the slightly older lads push through and manage to be among the first to sign in. Once in the youth centre they walk directly towards the pool table. I get the feeling they will dominate this space for the evening. As I watch the lads set up the pool table with lightning speed, I sit wondering which of the 'pushing' teenagers would be coming my way.

"Did you want to head through to the classroom away from this lot and I'll round everyone up?" Carol asks. Maybe she can detect my fear... I respond with, *"Whatever is easiest for you, I will get my information packs sorted."* And so I gladly move to the classroom. Around five minutes later a couple of lads came through. One looked very thin and stood around 5'5" with bright ginger hair. The other was slightly shorter but very tubby around the stomach, with dark hair. In unison they greeted me with a loud *"Hiya"*. I greeted them back and they sat down and continued with the conversation they'd obviously been having before entering the room. Shortly after two tall, very hefty, obese lads walked in. Both were the physical size that their facial features were starting to be taken over by the fat. The lads were quickly followed by a stream of four girls, two of which wore bright blue and pink velour tracksuits and were sucking lollipops. These two girls both wore heavy make-up with bouffant, backcombed hair tied neatly up with a bow. The other two were much plainer in appearance with little to no make-up, but still groomed with neat hair and wearing the latest fashion (I instantly noticed the latest Ugg boots that I knew, at over £150 a pair, I couldn't afford).

They all continued with their various conversations whilst sitting down at the benches. This reassured me they knew they were meant to be here, but at the same time unnerved me as to how to interrupt the various conversations. Thankfully Carol enters the room and within seconds silences the chatter by announcing in a slightly raised voice, *"Right... This is Denise from Liverpool John Moores University. She is the one I was telling you about that's here to do the Active Parks project with you to get you more active and that."* Carol then turns to me *"is that right?"*

"Yep" I replied. Carol continued to outline to the group that the point of the session was to go through with more detail what the project would involve, for me to answer any questions and to look at the consent forms; which ones needed to be completed by whom. At this point I took over the talking and proceeded to deliver what Carol had just explained.

As the session progressed, one of the hefty lads kept butting in saying “*it’s gonna be boss*” whilst at the same time fidgeting and whispering in the ear of the girl next to him (who would then respond telling him to “*get lost*” in most instances). I soon learned that this was Aaron. From the instant Aaron walked in I realised we had a character in the group. He was a very large lad for a 15 year old, tall (around six foot) and clearly obese, with big rosy cheeks. Like most of the lads in the building, he was wearing a black shell suit style tracksuit bottoms, a black t-shirt and bright white trainers. However unlike most of the other lads the t-shirt was long and hung awkwardly over the extra weight he was carrying around his waist and chest. His hair was clean shaven and he had a thick scouse⁴ accent, which included the throat filled hacking sound at the end of words and dialogue that moved at the speed of light! He had walked in making several sexual innuendos, something that continued throughout the session. As time passed I did wonder if Aaron actually got what I was talking about because he was fidgeting and whispering so much! But he was here and I hoped at least some of it was going in. Aaron had walked in with was Steve. Steve had a similar stature and look to Aaron, although ever so slightly smaller in height and girth. Steve was also 15 years old and wore a similar black tracksuit, brand new trainers and donned the same shaven head and big rosy cheeks. The main difference between the two boys was that Steve was much quieter and seemed almost shy in comparison to the brashness of Aaron. Whilst Aaron was fidgeting and whispering to the nearby girl, Steve paid attention and flicked to the appropriate forms and information when required to do so.

During the session Carol was excellent at reminding a few of the potential participants of the requirements and the need to get these things done, which then was acknowledged. The prompts seemed enough for them not to require further explanation to what was already being disclosed by me. As the session draws to a close Carol reminds the group about the relevant paperwork as they bumble out of the room with a series of “*ta’ra’s*”. As I start packing my bag with the leftover packs, we both agree the first session had gone ok.

I am relieved. I’m under no illusion that this is going to be an easy 14 weeks, but I really hope the group is engaged. Personally I had some frustrations when participants were talking over me and playing with mobile phones. Carol was good at mostly keep the group on task at these times. I have a funny feeling I am going to miss Carol’s presence on this project...

⁴Scouse is the language and dialect native to Liverpool

I arrive at the centre for the next planning session and as I enter, I'm greeted by a cheery John. *"Alright Denise, how's it all going? Carol's off tonight so I'll be stepping in from now on. We'll be back in the classroom again."* As Carol was leaving the following week it meant I did not see her again for the remainder of the intervention. John was now the main and only contact for the running and administration of the project at youth centre. In contrast to Carol, John was an extremely laid back individual. He looks as though he is in his forties, medium height with long coarse greying hair that is pulled back into a small ponytail. He is very thin with a gaunt face, but casually dressed in slightly baggy faded jeans and a white t-shirt. You could see he was a heavy smoker by the yellow discolouration between his index and middle finger on both hands. His general appearance reminded me of one of my brothers friends who I knew was heavily into *'smoking the wacky backy'*. Like Carol, John had a strong scouse accent and had not had the simplest of upbringings. As a consequence he had been in and out of different schools himself as a youngster and in trouble with the police – experiences that enabled him to empathise with some of the youths accessing the centre.

Around 25 minutes after arriving I was sat in the back classroom still awaiting for the majority of the group to arrive. They are now 15 minutes late! Just as John entered the room and started telling me we may be a *"few down tonight"*, I heard Aaron approaching in the same loud manner he had left the previous week. Just as John popped out again see if he could find the other seven participants, Aaron walked in with another lad. It sounded as though he was bragging as Aaron told the lad how he had been kicked out of college again. The lad laughs and shares a similar story. When John re-enters the room, Aaron repeats the story to him with a big grin on his face. *"Why were you expelled?"* John enquires. Aaron responds with something related to how the teachers are always shouting at him, just like in school where he had been suspended *"20 times"* and then finally expelled. John responds, *"well we don't shout at you"* to which Aaron replies *"I know, that's why I like it here. I don't even let my mum shout at me so I'm not letting them."* John looks at Aaron and adds, *"well that's because we respect you here and if we have problems we talk to you about them"*. Aaron looks pleased with himself and replies, *"I know yeah"*. John then adds *"although I wouldn't want to be your teacher"*. I can't help but state at this point in a low undertone *"neither would I!"*

This was a really strange conversation to hear. I really want to say something, but I stay quiet because it is not my place to do so (I remind myself about being subjective!) I feel John had just undermined Aarons mum and all the teachers and authority figures that have a role in Aaron's life. I really want to

defend the position of teachers and the difficult job they have and why it is important to take note in school, but instead I just sit there in silence. Plus I needed Aaron to participate in this study, and that meant keeping him on side! I think Aaron represents many of the characteristics of teenagers that this intervention is targeting – not only is he clearly physically inactive, but I can see how he might be seen as intimidating and I’m guessing (and from what I hear) regularly partakes in antisocial behaviour in a park environment!

But even with this justification, in my head I am questioning what the hell I have got myself in for? Have I made a mistake working with teenagers who obviously have real discipline issues – which probably also means a lack of commitment? Shit! To plunge myself into this crevasse is going to be challenging and possibly self-destructive in terms of what I ‘need’ to get from this intervention. This moment feels like a negative turning point. Not only am I seven participants short, but I have a teenager in front of me who clearly lacks discipline and can’t seem to operate within rules. This could prove difficult during a structured intervention where some rules need to be followed for it to progress or have any effect...

At this point everyone apart from me left the room to try and find some of the other participants. The session should have started 18 minutes ago! After another 10 minutes it was apparent that none of the girls would be attending the session. No explanation was provided, even though Aaron had spoken to one of the girls on the phone! The ginger haired lad peered round the door. *‘Hiya are we in here tonight?’* I confirmed and he quickly sat down. This was Lee. He was very thin, short and spindly looking. As Lee sits down I thought to myself that he really needs to pull his shoulders back to help his posture, but instead he stoops forward. Unlike the other lads he wore a slightly brighter patterned t-shirt (designer of course) and lighter grey tracksuit bottoms, although the same bright white trainers were apparent. Lee was softly spoken with a slight feminine undertone, which was in stark contrast to the other lads in the group. He sat waiting with his legs crossed opposite me. I ask *“Are you alright?”* to which he responds *“no everyone is getting at me”*. As I enquire who, Lee explains *“my mum, my dad and even my sister. They have all been getting at me”*. He looks upset, but again as my role within this group I’m not sure what I am supposed to say. So I make a joke about my work which makes Lee laugh and he returns to the personality I had experienced the previous week. Aaron and Steve enter the room a few

minutes later. Once they were settled (this took a couple of minutes), I explained the aim of the session and handed out possible ideas for activities and maps of the parks they might want to visit. Just as John flitted in again, the lads were discussing that they would have a look at possible activities they would like to do, plan half of the session and let the girls plan the rest. To this John said,

"You don't have to do that you know. The girls knew what we would be doing today and it is their responsibility to be here. They will just have to do what you guys plan."

"Well I don't mind, if you's don't, I think that's fair me", Aaron replies looking at the Lee and Steve who nod and murmur in agreement.

"Well I'm pleased you have done that, even though you didn't have to. I think the girls will appreciate that", replied John. I just sat pleasantly surprised by what had transpired.

At this point I was pleased that John had reinforced the consequences of missing a planning session and verbally made a point of commending the lads for agreeing that they would only plan half of the sessions. Whilst I am still miffed by what had transpired earlier with Aaron's stories of expulsion, I am glad it was him that initiated the idea of sharing the sessions with the girls.

For the remainder of the session we proceeded to discuss and plan activities for half of the timetable and agree one of the days in the week that activities would be delivered. This transpired into a very diplomatic process and we actually managed to agree dates, times and half of the activities within the remaining session time. After the session the lads disperse quickly. On leaving the youth centre Lee shouts after me, "*Ta-ra Denise*", to which I give a rather feeble wave back. As I walk out of the main entrance Aaron and Steve are stood smoking with a couple of other lads. I might as well have been invisible to them as I say goodbye and they just look blankly back at me. Knowing how brash Aaron can be, I walk away wondering if the presence of the other lads meant he didn't want to associate himself with me outside of the intervention group?

I'm sat in the centre with four out of the five girls who were absent the previous week. The missing girl is apparently babysitting her younger sister. Although John is in the centre he is involved in another activity (he didn't say what), so I am left on my own for most of the session. As the classroom was in use we are sat on the leather sofas in the main communal area of the youth centre. The girls are easily distracted by the boys playing pool opposite, which makes the session difficult to conduct.

In addition to this distraction, 2 of the girls who smoked were constantly asking if they could go for a "ciggie". Ironically this was a habit the lads by the pool table also seemed to share! These were the two girls who had turned up to the first session in velour tracksuits, sucking lollipops. Trina was one of the girls, Paula was the other. Trina was very petite and a very pretty girl with long dark hair that was back-combed and neatly placed with various bows in a beehive style on the top of her head. Although she had a clear complexion, her face was thick with makeup, which included heavy layers of mascara and striking pink cheeks. Her outfit was a who's who of popular designers including Ugg, Juicy Couture and Dolce and Gabbana. She came across very confident and at times very sarcastic! I don't know whether it is just her tone, but she always sounds like she's having a sarcastic quip at other people. I get the feeling she has her wits about her, but plays a massive game of control – if she were in an American teen movie she would most definitely be the queen bee of the group!

Whilst Paula had a similar look to Trina, she was a bottle blonde, slightly taller and carried a little more weight. She wasn't huge, but today she did have a clear muffin top falling out over her jeans which was emphasised further because her top was slightly too short. Where Trina was sarcastic, Paula seemed a little bit more straightforward and generally said exactly what she was thinking. In the short time we had been sat in the session, she had already made several demeaning comments about what some of the other girls in the room were wearing.

Ria and Sarah are the other two girls present. In contrast to Trina and Paula, these two girls do not appear as self-confident. Sarah is the youngest member of the group at 13, but is slightly taller than the other girls and appears very clumsy with tom-boy traits. Like Paula she is by no means obese, but is clearly carrying excess fat, particularly around her

stomach. On this occasion she is wearing a blue valour tracksuit with her hair wrenched back so tight her eyes are pulled at the sides. Other than some bright 'hot pink' lipstick she isn't wearing anymore make-up. When Sarah does engage in the conversation she doesn't tend to finish her sentences and loses track of what she is saying very easily. She often makes random comments that have no real bearing on the conversation at the time (as though her mind has taken several minutes to catch up with what is being said, but she has already missed the moment). In contrast Ria appears very nervous and shy, rarely saying anything unless asked. Although when she does add to the conversation she is calculated in her response. Being of mixed race, Ria is the only non-white participant in the group. Ria's looks and mannerisms remind me a bit of Leona Lewis (previous winner of the X-Factor), although unlike Leona she has a big mop of wavy, long dark hair. Whilst Ria may appear very plain without make-up, she has a natural beauty with a clear complexion. Unlike the other girls she is simply dressed in skinny jeans, a plain shirt and white pair of converse baseball boots which over hang her jeans and are tied only to the ankle point.

Whilst Ria and Sarah are not as disruptive to the session as Trina and Paula, they still think nothing about playing with their phones and talking to other people nearby, and even just randomly getting up and disappearing to the toilet without saying a word (Sarah).

Throughout the session the girls are consistently checking their phones and texting, which again did not help with attention levels.

The constant phone checking, fidgeting and lack of concentration was really starting to annoy me. In an attempt to get the session planning done I just tried to work with it as I really needed to get to know the girls better and not be viewed as an authority figure. After all this was their territory!

When the girls did finally engage in the task at hand, Trina had an issue over the week day the lads had suggested for activities to take place. It would have been useful to have John here to enforce what he had said the previous week about needing to attend sessions to have a say. Unfortunately by this time I had not seen John for quite a while! So instead I suggested this might be something we could discuss at the following session when everyone was present.

It has just dawned on me that working with teenagers might well be more of a challenge than I had previously thought. I don't really know the group that

well, and John's lack of presence means my role seems to be changing into more of a practitioner. I feel like I've been put in a bit of a difficult position and I'm not really sure how to deal with the many external distractions that threaten the planning phase of the programme. The aim of the planning phase was to engage with the participants and ensure they felt they had control and ownership over activities. If the girls were not really interested in even planning the activities it cast doubt in me over whether they would fully engage in the programme as intended.

13th July 2009 Youth Centre

It was really quiet in the youth centre. Ria was the only person who I knew wouldn't be present today as she had told me she was going to France with the school. As she was one of the quieter members of the group I make a mental note to use this as a conversation point when she returns. It is also raining heavily outside, so I don't doubt that has put people off coming to the centre as well. But I could see Trina, Lee and Pippa were sat on the leather sofas.

I was pleased Pippa was here because I hadn't had an opportunity to really engage with her in any way, apart from a brief introduction at the initial meeting. Pippa had missed the previous session as she was babysitting her little sister. It transpired that this is something she does quite often whilst her mother is either at work or out with her stepfather. From a brief conversation I'd had with John about participants I understood that Pippa's mum and stepfather were very strict at times with her. This may have been why she was considerate when I was trying to speak to the group or get a session started. Although Pippa appeared to be good friends with Trina and Paula, from what I could see she was a stark contrast in personality with a more gentle nature. She was a pretty girl with long naturally light brown hair and a clear complexion. Pippa was wearing makeup, but it was much more understated in comparison to Trina's. Her clothes were very fashion conscious; with a look that I'm sure I'd seen in the window of the Primark store the week before. Her hair was swept up in a high side pony tail with numerous ribbons and clips that not only kept her hair in place, but added to the outfit look as well. In fact she looked like she wouldn't look out of place in a teen fashion magazine.

As I approach the group I ask, *"Where is everyone?"* Trina looked at me and in a contemptuous tone stated, *"Aaron has pissed people off over the weekend and he was bangout of order"*

She paused as though waiting for a reaction, but then continued to say, “*he should have fucked off for what he said*”. Lee and Pippa said nothing. I had no idea what had transpired, but from what I could gather Aaron was steering clear of the centre at the moment because of something he had drunkenly said at the weekend. Just as Lee was about to go into more detail, John walks over from the tea counter and says very casually, “*Steve and Aaron are not coming tonight, but promise to be back next week. I can’t get hold of the other girls.*” No further explanation was offered and I didn’t push the matter because I was sat with the group, but with so with few participants the planned session quickly became reduced.

Attendance is becoming a problem already. It strikes me that there is a real lack of commitment with a ‘can’t be arsed’ attitude not just to this programme, but anything that requires commitment. I’m getting more frustrated and worried as the weeks progress, but without more support from John I think attendance will be an on-going problem.

Between Pippa, Lee and Trina we agree the final timetable. The first activity session was next week so I asked those present to remind the others of the times and activity. I make a note to ring John tomorrow to ensure all participants are contacted before the first activity to assist attendance. The session finished pretty much how all others had so far with a lurch towards the front door for a smoke. I couldn’t see John as I left, so just headed off giving a nod to the other youth worker across the room.

Reflective stop-off 1

Role and skills of the practitioner:

In the Active Parks programme the practitioners play an important role in the planning phase, participant recruitment and delivery of the programme. Investing time in meetings and planning the project helped build rapport between the practitioners and researcher, which meant they were familiar with what was expected from both the funding body and the researcher.

The role and skill base of the practitioner is fast emerging as a predominant theme for the current programme. The complex personal, inter-personal and social factors that form the context of working and engaging with challenging teenage groups such as those who access

the youth centre, requires a vast practitioner skill base (Eccles & Gootman, 2002). Carol and John seem to have different skills and approaches to working with the teenagers. Carol's personality demands more respect from participants, where she is much stricter and organised in her approach. In contrast John is much more laid back and rather than instructing participants, he is much more diplomatic and altruistic in his approach. His friendly and relaxed relationship with the participants means they appear to also take a more laid back attitude to what he says. John is not as concerned when participants are not present or aren't paying attention, and is just happy when they do choose to attend.

While supportive relationships like what John offers is important within this social setting, reinforcement of negative behaviours can become counter-productive in behaviour change programmes (Delgado & Staples, 2008). Ideally the teens should be balanced with setting high expectations and challenging problematic behaviour (Larson et al., 2009). Though John is able to empathise and connect with the teenagers (in part because of his own personal life experiences), on multiple occasions he failed to challenge unacceptable social behaviour. The failure to respond to unacceptable behaviour can affect competency development required for adulthood, for example the ability to listen within a structured setting (Larson, 2011).

When John became the predominant practitioner for the programme, it soon became clear that my role would change. To ensure activities were organised I evolved into more of a practitioner's role, which also meant taking primary control at the planning sessions. This is something I was unprepared for as the teenagers were often guarded and difficult to engage with. Because of this role change it soon became apparent that I needed to be more flexible with my approach and methods of engaging with the group. Extended periods of attention could only be achieved by varying methods and bargaining with time and cigarette breaks, although even then it was a constant battle to keep them engaged with so many other distractions. Whilst I would have expected this from younger children, I am shocked at the methods required to engage with this group of teenagers. Thinking back to Aaron's comments surrounding his teacher and resultant expulsions, I instantly feel empathy for anyone who has had to engage with such teenagers from a position of authority when they are asking for actions that the teenagers would not choose to perform. Even within a programme aimed at providing fun activities the group are more likely to choose to engage with, it is certainly a challenge as a researcher and practitioner.

The participant group:

Interacting with the teenagers in this environment has been an interesting experience. Most of the group members are dripping with designer status symbols that are representative of the consumer society (Dittmar, 1992). As these teenagers predominantly come from some of the most deprived neighbourhoods in the UK, I presume that either, 1) their parents live beyond their means; 2) the parents go without in order to provide such expensive accolades for their children or 3) the goods have come about as a result of criminality. Irrespective of the answer to this conundrum, it feels as though the participants distance themselves from deprivation through their image, which includes the designer wear as well as how they act.

Having met these teenagers I am reminded of some texts by Eric Fromm (1978; 1993). Fromm was and still is considered one of the world's most influential thinkers on psychological, philosophical and social issues. Fromm described how modern consumers identify themselves by the formula *'I am = what I have and what I consume'* (Fromm, 1978, p27). In his later writings (1970s) Fromm discussed human existence and the present period of crisis between two modes of existence - the having and the being. He described the having mode as the need to own possessions in order to bring a shallow sense of happiness that is offered through the consumer-orientated world. The having mode is concerned with material wealth and power based on greed. 'Having' people are described as narcissistic, egotistical, envious and aggressive. In comparison the being mode is concerned with selfless acts and shared experiences that lead to a psychological and spiritual happiness. The being mode puts people first over material possessions. The having culture was increasingly starting to dominate society's thinking before his death in 1980. Ironically Fromm's concepts ring true of this group and are perhaps even more relevant today than when they were conceived.

Britain is clearly a materialistic society, with teenagers and children often the target of heavy and influential marketing campaigns (Pollay, 1986; Buijzen & Valkenburg, 2003). On the high street there is an unprecedented visibility of brands dominating the city and often in the absence of any legitimate social means to achieve social status it is instead attached to the sheer possession of these ubiquitous and socially-hyped materialistic possessions (Fournier & Richins, 1991; Dittmar, 1992; Schor, 1998). Fournier and Richins (1991) argue that the materialistic individual's happiness is relative to what their reference group has. The ownership of material objects transcend instrumental and utilitarian functions, which

in turn encompass symbolic meanings (Dittmar, 1992). It is clear that these teenagers have been shaped by the having mode and are fully immersed in demonstrating what each has in relation to their peers. Although I may sound hypocritical as I am aware that I also buy into the materialistic having culture, I do not believe I am as involved with materialistic possessions as the teenagers in this group. At times it feels as though group members are interested in the programme, but only in what it can give them materially. I wonder how the having mode will affect the teenagers ability to fully engross themselves into the ethos of the programme in the coming weeks.

6.3.6. The narrative: 2nd Passage

“Health Inequalities”

27th July 2009: Cycling, Otterspool and Sefton Park

There had been torrential rain in the morning, but thankfully by lunchtime the clouds had parted and the sun was now starting to shine. Although typical of Liverpool the wind was pretty strong down by the waterfront, the route we were due to cycle in just under half an hour... I knew from experience this didn't make cycling easy, and probably less so with kids who aren't that fit! But as they say you can't control the weather and at least it isn't raining.

Today I had a lad called Craig joining the first activity session as a volunteer coach. Craig had just graduated as a student from the University and keen to do some additional volunteering while he was applying for jobs. He had a number of coaching certificates and experience of working with youths (albeit in a structured sports club environment), and was keen to get some additional work with teenagers to help in his teacher training applications. Craig was a rugby lad himself, not bad looking, with quite a strong out-going personality. He was not an A grade student by a long way, in fact I think he is one of those who winged his way through university, but he was a good bloke and as a self-declared delinquent during his teenager years, so I hoped he could relate to the group. Either way I was glad to have him on board, not least to help with some of the sports sessions that had been pretty much left to me to organise!

Despite it being agreed that the Youth Workers would organise each activity (e.g. coaches and equipment), the bulk of the organisation had

fallen on me! Although I'm sure Carol would have been more organised with the requirements, I was not as confident in John's abilities so I admit I had volunteered to do more than I had wanted.

I was waiting in the bike hire shop with Craig when the group arrived. The agreed meeting time had come and gone and in the end they were 23 minutes late. As the group pushed their way through the door of the shop, it was like a mini mayhem! Even the shop workers looked a little taken back at the increased noise of chatter, pushing and sudden fanning out across the shop. I know John had dropped them off, but I'm guessing he was parking the minibus as at present he was nowhere to be seen.

Only five members of the group were present, with the trio of Trina, Paula and Pippa missing. Inside the shop I could see (and hear) Aaron and Steve who were pulling bikes out of their stands, with a shop worker desperately trying to stop them. Lee was stood talking to Craig, who I had tried in vain to introduce as the group entered the shop, but with little response. Meanwhile Ria and Sarah were stood by the cycle helmets just giggling and pointing to some of the cycle outfits. As the hire bikes started to get wheeled out so the screams of "I'm having that one, no that one", "No I want that one" progressively got louder. Once settled (slightly) it was clear Craig was making a real effort with the group. He seemed good at interacting with a couple of them, especially the girls who seemed impressed that he was able to re-adjust the height of the bike seats to their needs. John entered at this point with a young lad no older than 10 years. He quickly told me that this was his son who would be coming along and that 3 girls didn't turn up and they couldn't be contacted by phone.

I'm completely miffed. No real explanation as to why there was only 5 members of the group, and although I'm sure it isn't a problem, I am a little surprised he has brought his son along. I wonder how it will affect his ability as a practitioner to work with the group. I'm really not happy, but again I don't think that this is the time or the place to discuss things.

As Aaron was starting to get louder, John quickly moved away to assist the shop worker in handing out the bikes. Despite all looking virtually the same, there were impatient and excited shrieks over who was having which bike. Aaron was very protective and possessive

over one bike, although as soon as he thought John had a *“well boss bike”* he wanted that one.

When everyone finally had a bike they were happy with, a female staff member came across holding an arm full of bike helmets. She turned to try and hand them out to the group, which created a backlash of bike helmet dismay! Steve looked straight at John and in a high pitched voice said, *“I’m not wearing one of them, you’re messin. What if someone sees me?”* With her hands smoothing over her hairline, Ria quickly adds *“I know I’ve got a bun in me hair and it’s hair-sprayed so I can’t wear one!”* *“Do we really have to?”* Aaron responds in disgust. John looked at them with hands out and quickly responds, *“Well put it this way, if you don’t wear it you can’t go on the roads and we aren’t covered by health and safety.”* With a defiant look at John, Steve finished by saying, *“Well I don’t care. I can’t be wearing that in Liverpool”*. After a couple more minutes of protests with John, Craig and myself all reassuring them it wasn’t that bad, and proving it by putting our own bike helmets on, Lee and Sarah finally put the bike helmets on. Thankfully the others followed suit by making a joke of the bike helmets and wearing them either up to far or to the side. Aaron looks at Steve and says *“It’s not that bad, although I’d be fine.”* Despite his helmet being perfectly fine, Steve responds with a similar tone to a toddler and whines, *“It doesn’t even fit”*. Even though it felt like an ordeal, it was a relief in a way to see the teenagers continue to laugh at each other trying on the helmets and actually getting excited over the activity ahead.

Outside the bike shop the group proceeded to cycle erratically around the side street as if they had never had their own bike before. Aaron in particular was skidding and pulling wheelies. I looked at Craig and he looked back at me. I think slight fear must have been present in both of our faces as we laughed nervously and tried to take control.

John was not with us. The bike shop did not have any bikes small enough for his son, so he had to go and drop him back at his mum’s house. This meant that Craig and I were left to guide the group along the waterfront to Otterspool Park where we had agreed to meet back up with John. Once we had finally got some order, getting across Parliament Street and down to the docks was the next task! This was a busy road and for some reason the highway code did not appear to apply to this group of teenagers! They just rode straight across the main road without any real regarding for the traffic that was fast speeding its way towards them. Thankfully we were soon heading down to the prom path, albeit with some of the teenagers riding through a red light! Two minutes into the ride along the prom Aaron took his cycle helmet off. Although Craig reminded him it would be safer on, his

words were to no avail. This caused a ripple effect as all of the teenagers proceeded to remove their bike helmets and strap them to the handle bars of their respective bikes.

Just then Aaron and Steve pelted off at an increased speed that I admit did not think their fitness could manage! This was to continue over the course of the afternoon. For the time being Craig stayed with the two of them while I stayed towards the back. I cycled most of the waterfront with Lee at the back of the group. Lee was a self-confessed hater of School PE, and often alluded to the fact he rarely participated in PE lessons at school.

Lee: I do exercise but I don't like getting... I don't really like doing exercise in front of people. But this project it's been good.

Denise: I know previously you've said your teacher was surprised [you took part in the project]?

Lee: Yeah that I was actually doing activities instead of just sitting there and watching.

Denise: Is that what you would normally do in a PE session just sort of sit back

Lee: It got writ on me school report that I think PE is a choice, Lee does not think it is a lesson and thinks he can turn up when he wants to [...] When I'm told to do it I don't really think, it's because I get told what to do. But if I sign up to do an activity then I stick to it as it is something I have signed up to do. I haven't been told to do it.

As Lee and I cycle along the waterfront, we begin to talk about his school and life in general. During the conversation Lee made me laugh as he told me about his 4 year old cousin and how he couldn't believe his age and how it made him feel old (at the age of 15). Lee talks as though he is well beyond his years, even though he looks much younger. Just as we were getting into a conversation about age, I look up and notice Aaron had dropped back and was trying to light a cigarette whilst cycling, well zig-zagging erratically across the pathway. "*Are you really going to smoke whilst riding?*" I asked. With the cigarette still perched in his mouth, Aaron replied, "*Yeab I haven't had one for a while you know. Anyway it's for Ria really*". Just as he lurches forward on the bike and comes to an abrupt stop I pull up beside him, "*Well Ria is miles ahead so I'm guessing you'll have smoked it by then*". Aaron looks at me with a grin and says, "*I'll save her half. Don't worry.*"

I didn't respond to Aaron at this point as I didn't know what to say without lecturing. I can't believe how much these teenagers smoke! How can they even afford them? In terms of healthy lifestyles the majority of these teenagers smoke, rarely do physical activity and from the odd conversation it sounds as though there is binge drinking on most weekends. At 15 years old (or younger) the lifestyles of these teenagers are far from healthy!

The rest of the group had waited by the Chinese restaurant which was just over half way down the river front for us to catch up. Aaron screeched to a halt and passes the half-finished cigarette to Ria, then quickly pulls out his ipod and puts one earphone in. I look around and notice that ipods and phones were visible with all of the participants except Steve who was happy enough cycling around the group in small figures of eight. Although we were all there, the technology playing of ipods and texting delayed the cycling for a few minutes. Steve was starting to look restless but did not say anything.

Steve is generally very quiet from observation, in fact back in the bike shop was the most vocal I had ever heard him! He had taken a while to adapt to me and was just starting to relax more in my presence – well much more than he had when I started the planning sessions! When we are finally ready to go Steve is the first to head off and I follow him to try and engage him in conversation. I ask him about his smoking since his visit to the Sports Science laboratory where his VO2 Max test was so poor he proclaimed he was giving up. “*So are you still not smoking?*” I ask nonchalantly.

“*Yep*” He responded in a triumphant voice.

“*Not even tempted?*”

“*Nah I've had a couple but that's it.*”

“*What made you finally want to give up?*”

“*Well it's stupid really isn't it. I don't really know why I did it.*”

Trying not to sound patronising I proudly say “*Well done. Do you feel better for it?*” Steve turns to me, nods with a smile and actually makes eye contact for the first time in the conversation, “*Yeab*”. At this point Aaron catches up and skids past. Steve and Aaron start racing each other (to my fear as there were more pedestrians further down the river front).

In a timely fashion, we all finally make it to the end of the prom where we are due to meet John. Again everyone except for Steve and Sarah light up a cigarette. Sarah was too busy pulling at her tracksuit bottoms and complaining about having bike oil *"everywhere"* (a few spots). Phones again become a prominent sight with Sarah, Ria and Lee texting vigorously. Just as Lee finishes a text, I ask him *"what would you do if you lost your phone for the day?"* A detailed conversation then starts to develop.

"I would die. I did once lose my phone, well I didn't lose it, my granddad took it for a day." Lee dramatically responds

"Why did he do that?" I ask

"We were away staying in a caravan and me and me sister were out in the club and got back late so all the doors were locked and we couldn't get in. So we went round the caravan and the toilet window was open. Do you know what I mean?"

"The really small ones?"

"Yeah that's it. Well I tried to get through, got stuck and woke everyone up".

"What time was it?"

"5am? Well around 4 to 5am. We were in the club and didn't realise the time so me granddad took my phone."

"How did you cope?" I ask with a sarcastic undertone.

"Just stayed in bed for the day. I die without my phone." Lee responds with a wry smile.

Ironically the conversation is interrupted by my phone buzzing! It was John checking where we were. Just as he phoned, so Steve spots him and starts waving and shouting in his direction. John cycles over to us and enthusiastically asks, *"Are we moving then?"*

Ironically enough as we met at the end of the promenade Aaron starts admiring the bike John had arrived on, to which John responded *"well it was the one you didn't want from the bike shop"*. Aaron looked a little bemused by this, but was interrupted by Craig who suggested we move on towards Sefton park. Sarah quickly responds in a whiny tone, *"I'm not riding up no hills. Is there hills?"* Craig looks at her and says with a friendly smile, *"It won't be that bad"*. Sarah smiles back and gets ready to leave. John commands *"Right come on"*, and although we had been waiting for a good five minutes Aaron complains, *"Couple more minutes. We need a break, just bombed it down here."* With a deep breath I impatiently respond to Aaron,

“come on we only had a couple of hours we should get on!” Thankfully he didn’t protest and we were all soon on our way, with Aaron and Steve bombing it towards the front again.

I admit I am getting a little impatient. We were late starting, it took longer than I had expected to get sorted in the bike shop (mostly because of the group messing around and some complaining) and the riding was of a slow pace with multiple stops for cigarettes, ipod adjustments and mobile phone checking! I can mobilise my 2 year old niece quicker than this! Despite my frustrations, the aim was of the programme was to get the participants doing physical activity in parks and we were getting there... Slowly!

Aaron was again skidding erratically and pulling wheelies on his bike. In my head I just hoped the bike didn’t break under the weight of his body! The bike was creaking pretty badly at times and even more so when the wheelies commenced. I catch up to Aaron and Steve and we quickly reach some mud hills. Aaron looks up at the hill and says “*Aw that’s sick!*”⁵ Can I do it? I’m going to do it.” Steve looks at me with a nervous laugh and says “*I don’t know*”. Aaron turns around and asks “*Don’t you think I can do it?*” Steve looks at Aaron and enthusiastically responds “*Well yeah*”. I pounce on the opportunity to encourage activity away from the group and suggest, “*Why don’t you two come down here another time and have a go? Do you have bikes?*” Aaron looks at me as though I’m crazy and responds “*I’ve got a bike!*” Steve then adds in a matter of fact tone “*Yeah I’ve got two!*” Keeping the enthusiasm I add, “*Steve you know how to get here don’t you?*” Steve looks at me with a big grin and says, “*Yeah my nan lives near here so I come down here sometimes.*” I look back and say “*Why don’t you and Aaron come down?*” Aaron then enthusiastically looks at Steve and asks, “*Can we?*” Steve’s smile grows wider as he responds with, “*Yeah I need to fix my bike, but boss yeah.*”

Just as the rest of the group catch up, Aaron declares “*I’m going to do that hill.*” His pleased look soon changed when John informed him he wouldn’t be on the grounds of health and safety. Despite an attempt at rebellion and a shot at cycling up the steep hill (he didn’t get far), he finally gave up and started to follow the group who had cycled past. I quickly remind him that he should return another day with Steve as it was after-all the school holidays! He cycled past stating, “*Yeah I’m defo coming down. It’s sick.*”

⁵ A reference to something being ‘sick’ means it is good.

We continue down the path, negotiate the gate and head over the main road. Just as we cross the road we have another stop, this time for the group to pop to the shop. Another 10 minutes pass with all group members except Ria in and out the shop on multiple occasions buying various snacks (crisps, hot sausage roll, chocolate) and sugary drinks (coke and lucozade). After a few more minutes and some more moaning from the girls (bike seat hurting, a small incline that was described as a hill), we were finally back on our bikes and moving again.

When we reach Sefton Park it was agreed that we would stick to the main paths and make our way around the large lake towards the middle of the park. A few minutes down the path we pass a little river ripple area with a small waterfall. Aaron had stopped so I slowed down. He looks at me and says, “*I like that, it’s boss*”. I have no clue what he is talking about and enquire. “*That*” he says pointing towards the ripple and waterfall, “*It’s just nice isn’t it*” I explain that Sefton Park had just been cleaned up with features like this restored. I was shocked to hear that Aaron had never been to Sefton Park as a child, but pleased that he was interested in the natural features. While he wanted to explore this area more, the others had already passed and were fast disappearing in the distance, so I suggest we leave it for now, but perhaps on one of the other Sefton Park sessions we take the time to return. Aaron grins and says “*Yeah that’d be sick!*”

I am ready to fall off my bike. Out of all of the group members I never thought I would have heard Aaron express such appreciation for natural features. It is as though he has never seen anything like this before, or at least never taken the time to stop and look. Although he only stopped momentarily today has been worth it for me for that single moment.

As we catch up I notice Ria on her own and cycle up to her. I initiated a conversation about a recent history trip to France and Belgium where she thought it was going to be boring but it was actually ‘dead emotional’ as they visited sites from the wars. As we cycle along I ask if she is enjoying the activity session. “*Yeah I usually dance everyday but I haven’t recently so it’s good to get out. The only thing is my bum is hurting*” she responds with a matter of fact tone. “*But it’s good. I like it.*” She adds with a smile. I smile back and we put the effort in to catch up with the rest of the group, who were now looping around the central monument by the park shop. I just pray they don’t ride into anyone as there are quite a

few people with prams and toddlers about! Thankfully a moment or so after we arrive, the group quickly manoeuvres towards the pathway leading to the lake.

We quickly make it across the park and back to the main road that leads to Otterspool promenade. After a harsh cycle back along the river front, where the wind was against us practically the whole way, we finally made it to the bike shop. Inside the shop bikes were 'handed' back, with some tired looking faces (especially Ria and Sarah). At the door Aaron and Steve were talking to one of the shop workers. Just as the group were sorting themselves out, I ask Steve if he enjoyed the session. "*I really enjoyed that. It was boss. Yeah it was really good. Nah that was boss thanks.*" He stuttered enthusiastically. Just then John turned to the group and asks, "*Have you guys got something to say?*" The response came as a mummer of thanks aimed at Craig and me. The group leave and it feels as though calm is restored to the bike shop (and my nerves).

I was conscious of spending time with most of the participants and what the activity did enable was time 'alone' with some of the teenagers to get to know them a little better as people. Conversations tended to revolve around smoking, phones and social activities, although every now and again the activity itself and the odd scene related conversation was noted. Also, although the session felt hectic it was an activity that brought out another side (a more playful side) to the group. In particular Aaron and Steve demonstrated a 'child like' self where they forgot about being 'hard men' for a short while and enjoyed and played with the activity at hand like children.

29th July 2009: 'Man Hunt' in Woolton Woods (Cancelled due to torrential rain)

I have just got off the bus outside the youth centre for what was supposed to be the 2nd activity session. Unfortunately torrential rain meant the activity had to be cancelled – partly because of health and safety but mostly because John said there wasn't much chance the group would set foot outside if it was raining. So instead it was agreed we would do "*something*" at the youth centre. I suggested that it might be a good opportunity for me to have a couple of informal group discussions to gather some of the participants' opinions on physical activity and park use.

As I walked through the main entrance I notice the group seemed more than happy to be hanging out in the youth centre. I noticed everyone except Steve was present. I hadn't been in the centre long before John mentioned he had introduced two new participants to the project "*to make up the numbers*". I was introduced to the two lads (well waved at from across the room). Like the rest of the lads they both had clean shaven heads, were wearing black tracksuit bottoms and plain t-shirts hanging over the top. They were both fairly thin, and I couldn't help but think a bit scally looking. One of the lads was very loud and seemed to have Paula and Trina's undivided attention. This was Dave, while the other lad was Chris. As Dave spoke, both girls giggled while twirling their hair around their fingers in a suggestive manner. Although I wouldn't say Dave was the best looking lad in the world, he obviously had something that captured the girl's attention. From first impressions I guessed he was a bit of a 'jack the lad' and probably not too dissimilar to the lads I had seen push their way into the youth club and take over the pool table at one of the previous planning sessions.

I didn't know what to say when John 'presented' the two new participants to me. I feel like I have been put in a position where I couldn't but not agree. From what I could gather they were asked to join opportunistically as a way to make up the numbers as opposed to purposefully selected. Both seemed physically fit and a lot more confident and rowdy than the other boys in the group. I admit I haven't even spoken to them yet, but already I am sensing their personalities will change the dynamics of the group.

John shouts across the room "*shall I get the Wii down?*" which is quickly followed by enthusiastic chants of '*yeah*' and '*boss*'. He turned to me and suggested that if he set the Wii up along with the pool table in the main area, it would give me the opportunity to speak to the participants in the classroom. While John heads upstairs, I decide to split the group between males and females to see if I could get different responses if they were divided by gender, and whether different areas of discussion would develop by doing this. Despite trying to move the girls into the classroom for the first discussion, Trina just looked at me defiant and said, "*Why? The boys can piss off for a bit so we can sit comfy here aye?*" I looked at Trina and I'm sure she knew I was frustrated as she gave me a wry smile. Paula joined in with a "*yeah*" and although the others didn't say anything, they all just gathered on the sofa and didn't move much further. I suggested it would only be fair if we moved elsewhere

but within just a couple of minutes the girls were defiant and I felt powerless. Just then John arrived pronouncing he couldn't find the Wii upstairs but would look in the equipment cupboard. I quietly told him that the girls wouldn't budge and wanted to do their discussion in the sofa area. Either he didn't detect my annoyance or just chose to ignore it, but John just looked at the girls and replied out loud *"that's no problem, I'll take the lads through the back room for a bit to giv' us a hand with some shifting."* Trina looked at me triumphant.

This was not the response I was hoping for from John. Inside the frustration and anger is building as yet again defiance from the group (in particular Trina) has meant they have got their own way. I'm going to have to watch what I say for the remainder of this session, as at this moment in time Trina is really testing my patience. And what's worse is I think she knows it.

As the boys joked and followed John from the room, they didn't seem bothered at all that they had been asked to move. In fact the only person that seemed bothered by this act of defiance was me, so I took a deep breath and just smiled at the girls. I sat down on a chair opposite the sofas and explained we would be having a chat about their current use of parks and physical activity participation so I could understand their perspective.

It wasn't long before I found that this area proved to be a difficult space to conduct a discussion. There was intermittent banging on the front door and on occasion the lads walked through, which caused some of the girls to lose concentration. Just as we were about to get started, Dave walked through the room which caused an outbreak of whispering. I heard the words *"well hot"* said on multiple occasions, but couldn't quite hear the full context. This was followed by an outburst of giggles among all the girls except for Ria who just sat playing with her phone and rolling her eyes intermittently.

When we finally got back on task, the discussion was dominated by Trina, Paula and Pippa. Ria didn't really get involved at all and Sarah had a vacant look about her as though she didn't really know what was going on. I start the discussion by asking about their physical activity participation, to which Paula leans back and responds *"depends what it is"*. In contrast Sarah just blurts out, *"and when we go bike riding to get a nice seat on the bike"*. Even though I heard Sarah I respond to Paula with, *"So when you say it depends, what it is what sort of stuff do you like doing?"*

"Jogging and swimming" Trina Responds

"I like going the gym as well." Pippa adds.

"Yeah the gym" Trina Agrees

"The gym" Paula says, while vigorously nodding her head.

"I haven't been for ages though. When I do stuff though I get all sweaty and I get a rash don't I Ria, when we used to go to the gym all the time. I do, I do ya know." Trina Responded sounding very matter of fact. Ria looks up but doesn't respond. She really looks as though she would rather be anywhere except for here. I look at Trina and ask, *"does that stop you from doing anything?"*

"Sometimes" Trina starts, before Pippa interrupts *"I always used to get pains in my chest, but I haven't got asthma or anything"* Trina then look directly at me and adds, *"O yeah I can't erm...I can't breathe properly I think it's because I smoke but I don't know. Like I can only run, like proper running I can only run for about 5 minutes."* Trina turns and looks at Paula, *"Can I?"* Paula just shrugs her shoulders. The conversation momentarily goes quiet so I turn to Ria and Sarah and ask *"How about you guys?"* Sarah looks down at her feet that were now waving about in the air and quietly responds, *"I don't know"*. Trina rolls her eyes *"What do you like doing?"* she snapped. I jump in and ask about the Monday bike ride (as she had already mentioned the bike seats). *"Yeah"*, Sarah murmured with no follow up. I ask whether the girls have bikes themselves *"Yeab"* Trina and Paula chant

"Well I did but me brother robbed the bike then got hit by a car so it got dinted." Paula added with a smirk.

"Mine got robbed out me shed" Pippa added

"Mine got robbed out my back garden" Trina said half laughing

"Mine just got rusty out my back garden" Sarah finished.

I looked at Sarah and asked, *"Is that because you didn't really use it?"* A flurry of responses from all the girls followed; *"It's off the rain"* Trina stated sarcastically.

"I didn't actually use it that much but when I did I used to love going bike riding." Pippa said referring to her stolen bike.

"I know. It was good though because my mum got 2 for £99" Paula sighed

"Mine was about £150 ya know from bike king and I used it about twice. Me mum flipped." Pippa added with a giggle.

It feels as though some of the girls are bragging about the fact they had bikes stolen, as though it was some sort of status symbol. Although as they didn't really consider the bikes to be of particular value (both in monetary terms and for physical activity use), I'm guessing they probably weren't even that bothered when they went missing.

I try to move the conversation forward and ask what the girls liked about physical activity. The response could be seen as somewhat typical of teenagers with Paula and Trina chanting *"losing weight"* while Pippa added *"keeping fit"*. I was then slightly shocked to hear Sarah state with confidence, *"I like you can have a laugh with your mates as well as when you're losing weight"*. I nearly fall off my chair when Paula says, *"And I get a weird buzz as well after"* Trina looks at Paula and adds, *"Yeah you get dead hypo"*.

"Like how? What do you do?" I ask

"You get just dead happy cos you feel better about yourself" Trina says triumphantly.

"Yeah I feel better... Love PE" Paula adds.

Paula had stated on a number of occasions prior to now that she hated PE and didn't really do any exercise. This was pretty much confirmed when she came for the lab visit where she was measured as over fat (despite a 'normal' BMI) with very poor fitness. So I'm not sure if she is being sarcastic or telling me something that she thinks I want to hear?

At this point I try not to sound sarcastic when I ask, *"You love PE?"* *"I do yeah, rounders."* Paula smirks. *"I wacked her in the eye with the ball"* she adds elbowing Trina. *"That was in tennis, she turned round and wacked me"* Trina giggles. Having not spoken for a while Pippa randomly adds, *"I also like badminton ya know"*. While I ask Pippa about badminton (she played with her auntie from time to time), Trina and Paula start whispering to each other and giggling almost uncontrollably.

To try and re-engage them before they start asking for a “ciggie break” I ask the group who they generally do activities with. The general response is mates, with a shout of sister added in from Paula. At this point I am aware Ria is yet to speak. I turn to her and ask what she does and to get involved. Ria looks at me briefly before looking back at her phone. “*It’s not like you to be quiet*” Trina snipes at Ria. “*That’s her physical activity talking*” Paula jokes to Trina. I wish I hadn’t tried to involve Ria now as there were obviously some tensions between her and some of the other girls. I remembered Ria had mentioned dancing during the bike ride so I ask her about that. Thankfully she responds, although at the same time Trina lets out a loud huff. As I ask if the rest of the group dance Trina snaps “*I used to go dance with Ria, but I quit because its crap.*” She then turns to Ria and spitefully adds, “*No offence.*” Thankfully just then Sarah blurts out “*I used to do dance ya know, I used to go the dance thinking I was doing pure street dance and it ended up to be ballet*”.

There is obvious tension between Ria and in particular Trina. Of what I have seen of Trina to date, she comes across as a bit of a bully and the way she snipes at Ria is confirming this. Ria is not retaliating but she is withdrawn and I feel sorry for her having to be in what is clearly a very difficult situation. Selfishly I am glad she doesn’t retaliate as I’m not sure what I would do if I have to deal with such a situation. I am using the tactic of keeping the conversation flowing but I have made a mental note to speak to Ria afterwards just to make sure she is ok.

This sparks a conversation about what they do ‘nowadays’. While the girls start by implying regular participation in kickboxing and boxercise at the local leisure centre, further probing on this issue reveals it is not a regular activity, but things they have done very occasionally. When I ask if any of the girls have lifestyle futures passes⁶, blank faces look back at me. I explain that with a futures pass you can get free access to all lifestyle centres if you’re under 17, a scheme that had been running for the past couple of years. None of them had passes, suggesting that either they didn’t access the facilities that regularly or they were completely oblivious to the vast marketing in schools and around the centres that I know had taken place across the previous school year. As I mentioned free swimming a flurry of conversation started up again. “*I might go swimming. Does anyone wanna go swimming?*” Ria asked. Typically Trina was the first to respond, “*O Danielle went swimming yesterday, she*

⁶Under the Future Lifestyles programme, under 17’s can access council run facilities for free. This includes access to the fitness suites, swimming pools and use of all playing surfaces.

asked me if I wanted to go but I said no.” I was pleased when Ria completely ignores this response and turns to Sarah to ask, “*shall we go swimming later on?*” Sarah paused as though she in deep thought before responding “*No cause I’m dead fat I don’t like going swimming. Yeah I’ve got to lose weight before I go swimming.*” Trina then abruptly adds, “*That’s exactly what I said I’m gonna, I’m aiming to lose... half a stone before I go on holiday. I’ve lost loads of weight anyway.*” Paula looks at me again and adds, “*She has lost about 4 pound in 3 days!*” I look at Trina’s slight frame and wonder where she gets the idea she needs to lose weight from. I ask how she is losing the weight to which Paula responds “*not eating*”. Trina smiles and responds “*I have been eating*” which prompts Pippa to say under her breath, “*Not properly*”. The conversation then started navigated towards weight loss. “*So you lose weight and you put the weight back on*” Paula chants. In retaliation Trina then points at Paula and states “*You should see how much weight she lost, she used to be a little fat kid!*” Laughing uncomfortably Paula says “*yeah I loved my cake back then... Loved me cake.*” Turning the attention back on her, Trina adds, “*I was a little anorexic thing*”. Although Trina was then interrupted by Sarah who blurted out “*can you go to the gym and just ask for a lifestyles pass and they will just give you one?*” I explain the process of getting the free pass, to which Sarah is intently interested.

The conversation continues around different activities they have tried and who they participate with. Pippa admits she tends to do more with her auntie as when she is with her mates they just tend to muck about and not really do any exercise.

Pippa: Me auntie tells me I should start going to the gym and stuff like that and start eating healthily. Me mum says to me all the time and me mates as well. We all decide to go on a jog but we never end up going.

Denise: Why do you think so many people are telling you to do this?

Pippa: Just to keep fit cos they say like one day you wake up and you’ll be fuming

Just as the giggling starts again between Trina and Paula I quickly add another discussion point, “*So that’s all the sort of things you do at the moment, but can you tell me what you don’t like doing about physical activity?*” Pippa looks up sharply, “*Urm like starting it. I hate starting*”. She pauses and then continues, “*Like when you go out for a jog but you can’t be bothered but you know you need to.*” This sparks another conversation about weight loss and toning bodies, so again I probe, “*What don’t you like? I mean if you are not doing it regularly why is that?*” Trina, Pippa and Paula all go to speak at once, although as Trina raises her voice she states “*I just can’t... I’m just too*

lazy. Aren't I a lazy person?" Paula ignores the question and adds, "I hate, when erm, when your jogging or something and you get out of breath dead easy and you want to carry on and do it for ages but you can't."

"If I didn't have to do it I wouldn't do it." Pippa states with a smile.

"I don't do it." Trina states defiantly, then looks directly at me, *"I don't."*

Turning to Pippa I ask, *"So do you enjoy doing it then?"*

"Sometimes I do. It depends what it is though. Like if you go swimming or jogging I don't mind it." Pippa responds.

Sarah suddenly waves a hand in the air and adds *"I've got like no-one to come to like the gym with me because I'm not going on my own. Cause there's like all lads there and you're just running round on your own on the treadmills and all that."*

"It's easier to go on your own though." Ria says looking at Sarah, *"It really is."*

"I know I reckon it is" Pippa adds, *"I used to jog on my own but now I don't because I get scared and my mum won't let me."*

As I was about to ask why her mum wouldn't let her, Trina shouts at Pippa, *"Will you just put it on because you are doin my head in with it"*. I hadn't even noticed but apparently Pippa was playing with her bracelet and it was annoying Trina. This sparked a few strong words between the two of them, which caused me to lose my concentration. When they had calmed and I had put my foot down about a 'ciggie break' I try and get the discussion back on track by asking why they think people their age aren't particularly active. *"Cos they can't be bothered"* Paula continues in an exasperated tone, *"Co's they rather might like just go out instead and under age booze drinking..."*

"Cos you feel ashamed in front of lads as well. I don't feel ashamed in front of lads" Pippa states

"I do. I do all the time that's why I wouldn't sing the other day." After a brief pause Ria quickly adds *"I hate doing dance shows as well. I hate doing it, but I love dancing that much that I do it anyway."*

"So if you're in a dance group with a load of boys and just you? How did you feel then?" I enquire.

"I felt alright because they were all younger than me it was alright but then I won't do like shows with the lads from school. I don't know" She responds rather sheepishly.

The conversation moved back to drinking and antisocial behaviour. I ask if any of the girls had experienced situations where antisocial behaviour had occurred. Loud chants of enthusiastic 'yeah's' quickly came back from all of the girls. Pippa then went on to tell a story about a girl who had stopped training with the harriers (local athletics club) when she was a teenager because she had met a lad. *"And now she has started smoking and everything."* Sarah quickly adds. Trina then looked at me and proceeded to tell me that the girl in question blames her for starting smoking, *"Because when we were drunk one night she asked me if she could have a ciggie so I give her one"* Trina pauses briefly and then continues, *"So now she says it's because of me. But like I've told her not to and all that and she says 'o no I won't' for ages but then she says she needs a ciggie, but she doesn't"*. Confirming the story Paula then adds, *"Yeah she says she's addicted but she only just started about 4 weeks ago or something and you can't get addicted"* When I ask if smoking is a good thing, Paula, Trina and Pippa all protest that it isn't with Pippa adding *"I wish I had never started"*. But none of them alluded that they were likely to give up anytime soon!

As I enquire about their park use, between them they explain that Dovecot Park was their local park (also across the road from the youth centre). When I ask what the girls tend to do in the parks, Trina smiles and responds, *"We just sit and drink and play on the swings like"*. The discussion progresses around a lad who had broken both his wrists jumping off a swing while drunk, and how one day some of the lads from their school decided to start taking dog poo bags out of the bin and throwing it at people (which sparked further whispering and giggles). I then heard the word "gangs" mentioned and ask about this. Trina quickly answers, *"They are usually our mates. There is about... How many of us are there now? There used to be about 70 of us."* Paula shakes her head and adds *"No altogether there is about 100 isn't there."* The girls explain how they used to congregate in large groups around a place called the Bulldog, by one of the local pubs. This sparked the following conversation;

Paula: *How snotty was that policewomen last night*

Trina: *yesterday? Right listen to this we were standing down there by through goods and the women was parked where you cross over. Like she was parked there*

Paula: *You couldn't get out.*

Trina: *And she went where are you's going, no she went where do you live? And I went Hyton and she went get to Hyton then. And then I said well move your car then. Because her car was in the way. And she went, well go then, and I said well move your car then.*

Paula: *She was screaming*

Me: *Why was she asking you to go?*

Paula: *I don't know we were just, there was only about 5 of us.*

Trina: *Because there are too many of us. I reckon they think that we are going to do something but we are never... Some things did used to happen like, like cars used to get smashed*

Paula: *Someone robbed from sainsburys or somethin, o no smashed the window and we got accused for it because they said there was a big gang around 10 people or something so they just came straight to us.*

Trina: *there was 80 of us or something though.*

As the conversation turns to Paula and Trina shouting at each other about the numbers, I quickly ask, *"So drinking in the park and stuff like that is that something that you have done in the past?"* They all agree with Paula stating, *"Still happens in the future"*. *"It's cos we've got nothin else to do and it's just boring"* Sarah quickly adds. Trina then looks at me and in a matter of fact voice asserts *"You feel dead weird when you're having alcohol. So you've just got to have it haven't you"*.

Before I could respond, Dave poked his head around the door and gestured to the girls. This caused the discussion to quickly come to an as the girls declared they were going for a ciggie and proceeded towards the front door. The lads quickly spilled into the room and followed them outside. Just then John emerged with the wii and proceeded to set it up on the large flat screen TV. As the group started to wonder aimlessly back into the youth centre, I insist the second discussion with the lads should take place in the classroom to help reduce disturbances. Thankfully they all agreed without protest.

As the newest members to the group, Dave and Chris joined in the discussion. I couldn't help but notice that Aaron was not really comfortable with their presence. I soon realised why when Dave started to dominate the conversation and brought out a very different (and more confrontational) side to Aaron. We started by talking about what activities they participated in, which brought responses relating to rugby, football, cricket and rounders. Aaron is particularly keen to mention that he likes football, rugby and cricket, although I admit that while he is speaking I am wondering if he does actually participate as his physical fitness would suggest not. I wonder if he is just agreeing with the other lads and perhaps just telling me what he thinks I want to hear...

Chris adds that he likes bike rides, to which Aaron enthusiastically responds *"Yeab bike rides that was boss the other day"*. When I ask Aaron what he likes about the activity he quips,

"Because it keeps you fit and 2 it makes you lose weight and 3..." "It's just fun" Chris quickly adds. Dave then interrupts, *"it gets your stamina up and gets your bones strong and it keeps you busy"*. When I ask how it keeps you busy, Chris responds *"So you don't get bored if you've got nothing to do"*. It transpired that the lads get bored a lot of the time, with sports providing some relief on occasions. This prompts Aaron to add, *"I'm getting a gym in my, you know the outhouse? It's getting turned into a gym next week. And I'm going to be smacking its head⁷ in all week."* Aaron flexes his muscles in a strong man style pose, *"You're going to see me in a few months like..."*

I again ask what the lads like about the activities, but get a series of one word answers. Probing doesn't seem to be working as well as it did with the girls! When I ask who the lads tend to be active with Dave promptly replies *"The firm"* followed by a large grin and stuttering laugh *"just everyone here really... And then about 40 more"*. This prompts Aaron to state, *"I reckon we get a rugby team going"*, to which Chris replies, *"yeah I reckon rugby. I play for Liverpool now, the reps."*

"How can I get in there?" Aaron asks

"Do you play in school? Just join the school team." Chris suggests

Aaron quickly responds, *"Yeah because I'm in school, you piss taking cunt"*

Chris laughs *"o shit yeah"*.

Before they lose track of the discussion I quickly ask where they tend to go for activities. The lads start to reel off a list of local parks, which includes 'springy' park across the road. Lee had hardly spoken so I ask him directly where he tends to go, to which Aaron sarcastically answers *"Dovey Park"* and bends his wrist over in a gay gesture. Lee quickly responds with a sound of annoyance, *"No I don't go Dovey Park!"* Thankfully the conversation gets side tracked with someone passing the window and when the focus finally returns the conversation shifts to gym use and *'smashing its head in'*. Dave manages to turn the gym conversation into one of a sexual nature with him and a load of *"fun girls"*. I quickly try to diffuse the conversation, but it continues for another minute or so with Aaron joining in.

This discussion is constantly getting side tracked. Any opportunity to add a sexual quip and Dave is there, followed quickly by Aaron. I am

⁷ 'Smacking its head in' refers to working out hard.

finding it difficult to keep the lads on track of the discussion and even then the answers tend to be short with a lack of elaboration.

What I am gaining from this discussion is that both Dave and Chris play sports, thus confirming they are not the most ideal candidates for this programme. Dave is very confident and dominates the conversation, something that makes me uneasy, especially as he has a short attention span and is very cheeky (especially when females are mentioned). I have a feeling he is going to significantly impact the programme from now on!

As I attempt to turn the discussion back to sports and activities it proves difficult as the giggling and messing about continues. Dave and Aaron are now both having slight digs at Lee about his sexuality. As I try to bring Lee into the conversation Dave continues to speak over us and answer for him with sexual references including *"He likes playing with the balls"*. Thankfully Lee just rolls his eyes and responds *"easy sports. I liked the bike riding."* In response I try to steer the conversation back to the Monday bike ride, but as Dave wasn't present and all he could do was talk about where he was I tried changing the subject. *"Is there anything you don't like about taking part in physical activity?"* I ask. I don't think Dave was actually listening as he started to reel off sports he didn't like. I clarify the question and Aaron interrupts stating *"you get out of breath"*, who was then interrupted by Dave loudly declaring *"moving off the couch"*. Aaron then added, *"Yeah I'm a coach potato"*.

Somehow the conversation is then side tracked again, with talk about shooting people in the 'Dovey'. In desperation I quickly ask if they prefer doing activities alone or in a group. Dave quickly responds, *"On your own because otherwise your nob head mate doesn't stop talking to ya! But no when you can just stick your earphones in and just get on... And then you can think how many things you've ran or how many weights you've lifted by the time you get out the gym"*. Aaron proudly announces, *"We did just over 12 miles on Monday, on the bikes!"* Not to be out done Dave quips back, *"when I was a kid I jogged 8 miles. I was made up... Non-stop, not holding on to anything and no water"*

The conversation slows. I quickly mention the parks and Dave responds with *"Its full of smack heads and gangs"*. I ask if this puts them off going in and Dave confidently responds,

‘No you just get your 44⁸ out don’t ya and say get out me park you divie’. Aaron looks up with a smile, *“and people pushing cars into walls and into fences, stupid little divvies.”* When I ask for clarification Dave responds, *“we see a load of jobs pushing a car into the wall... I reckon it was hysterical myself.”*

Aaron responds, *“Yeah it was funny but it was harsh because the feller was old”*

“But it was ok tho, shall I tell you why? Because the car was a micra” Dave laughs *“you would not even be arsed even if it got burnt or anything”.*

Dismayed I enquire *“Why do you think they were pushing the car into the wall”*

“cause there is nothing to do and they are just trying to get a laugh off” Dave responds in a matter of fact tone.

Trying not to let my anger spill out I ask, *“Rather than pushing a car into the wall what do you think they would rather be doing?”*

“Trying to hot wire it” Dave responds with a nervous laugh.

Although I’m not surprised, I am slightly shocked at how matter of fact and normal the discussions surrounding anti-social and illegal behaviour is. Such activities like the car destruction sound like a regular occurrence in their local neighbourhood, with recognition of gangs and related violent behaviour providing bragging rights.

As we continue it is clear Aaron is showing signs of boredom, fidgeting and getting up and down to the window. He then puts his head in his hands and declares he hadn’t slept the night before. I ignore him and instead ask the others, *“Do you think there is anything for you guys to do in parks”.* ‘No’ came the chorused response. *“We just take over the park swings”* Chris declares, then proceeds to repeat the story the girls had told earlier of the lad who had broken his wrists drunk. As I ask what they would rather see in parks Dave gives the responsible answer of *“Astros”* just as Aaron states triumphantly, *“booze all over place, full bottles”.* Ironically Dave then states, *“Shhh listen I’m the only wise one here”* and in a serious voice adds, *“astro turf with flood lights on...”*

I respond to Dave, *“you think that should be in a park? Why?”*

⁸ 44 refers to a type of gun

“why? Because it will attract more kids coming over to the park. You need lights on that park because who’s going on there at ten o’clock at night? Everyone is on the streets then. If that was lit up at night everyone would be on there. They’d be drinking but who’s bothered? They’re not arsed round here” Dave responds with a stern expression.

“Does it bother you if people are drinking in the park?” I enquire.

“Well they’re not drinking on the streets then intimidating people, they’re just sitting in the park having a drink. Even the bizzies say to us go on the park and have a drink”. Dave explains.

Lee then looks up *“Yeah but even when we are on the park the bizzies come over and say that they’ve had complaints”*

Drinking is clearly a regular past time, with Dave certainly not thinking anything of people his age (15) drinking out in the streets at 10o’clock at night. In this instance parks are seen as a place where they are able to escape and do not see anything wrong with alcohol consumption at their age. While I also got caught up in similar habits at their age, we were much more coy about it and would never speak so openly...

As I mention Sefton and Calderstones Parks this sparks a discussion about gangs with dogs who *“Don’t even pick the shit up and we walk in it”* Chris states. *“Does that annoy you?”* I ask, *“I take dog bags out, pink ones”* Dave declares. Lee looks surprised and when I ask why he responds, *“well I don’t pick mine up, although my dogs too old to go for a walk, she’s 11”.*

Remembering what the participants from the exploratory phase had said about dog muck, I probe further *“So honestly now, have you ever taken your dog for a walk and not picked the shit up?”* Lee looks at me, *“Yeah I always do it, but I don’t take her no more because she is too old.”* I then ask, *“and what happens if someone else walks in it?”* Lee shrugs his shoulders *“It’s not my problem!”*

The other lads were by now discussing *“the bizzies”* again. Much of the chat was around them being shouted, which culminates in Dave declaring *“I hate them, I proper hate the bizzies, It’s just idiots in uniforms who think they are bigger than what they are. If they were in civies I’d proper knock them out.”*

“The community support officers are the best. They make me piss” Lee adds.

“I stand and wait for the real bizzies” Dave smirks.

When I ask about policing in parks Lee responds *“section 13, you’re not allowed to be in a group more than 2 for us. If you got caught in more than a group of 2 and then went back into the area then you get took home or arrested.”*

Dave could obviously tell I was confused and so explains, *“It’s like an asbo from the area for 24 hours, and I got caught.”*

“If you’re under 16 then you can’t be in a group of more than 2 people” Chris adds.

“When they put a section 13 in, it’s all days. A section 16 is stop and search”. Lee explains.

“They’re just showing us that they’ve got more power.” Dave states whilst folding his arms defiantly.

As Lee and Chris both receive text messages their attention drifts. Lee’s phone then starts to trill and he quickly answers. The lads were now aware the Wii had been set up next door and quickly start to lose interest so I wrap the discussion up.

I am surprised at their knowledge of police procedures for dealing with anti-social behaviour in the local area (which is far superior to their knowledge of health and fitness). Conversely while the lads claim they are victimised by local ‘bizzies’ in the area, there is also a clear lack of respect for police. While victimisation may be true, from what the lads have disclosed about theirs and others behaviour (particularly where alcohol is concerned) there is a clear need for police intervention. The stories of what teenage groups get up to in parks are similar and somewhat confirmatory of what the participants were suggesting in exploratory phase of the PhD research.

The discussions have provided me with an opportunity to get to know the new participants and integrate with the group. As I start to get involved in the Wii activity, Aaron and Dave in particular soon took great joy in taunting me for a poor performance (on one of the fitness tasks I ended up with a Wii age of 54!) But I didn’t mind as I was starting to feel as though the group was more at ease with my presence.

Individual health and physical activity participation

During the group discussion I asked some explorative questions surrounding physical activity and health and I was dumfounded by their ignorance (or perhaps lack of knowledge) surrounding some of the health issues. Although there was some recognition as to why you should be physically active and the impact on health, the messages were either ignored by some or misconstrued for vanity purposes by others. The girls in particular reeled off reasons as to why they should be physically active, but then stated how they didn't have the motivation to participate and didn't like getting sweaty or out of breath. Previous research has found teenage girls are most likely to participate in physical activity because of concerns about body shape and weight management (Allender et al., 2006). The pressure to conform is often related to beauty and physical size derived from popular culture and social beliefs (Cockburn & Clarke, 2002; Porter, 2002). This was clearly evident among the girls and to a lesser extent the boys (some of whom stated a desire to be muscular). Although intent to participate because of vanity was implied, actual participation to achieve these goals is yet to fully materialise.

It has been argued that in a culture where health is valued, people will look at themselves and how well they achieve healthy living as an individual (Crawford, 2008). While participants were aware of health issues and some of the benefits to being physically active, the value they placed on their individual health was low compared to other aspect of their lives (e.g. socializing with peers). Although some participants were physically active, the majority didn't really seem to value the concept – especially in comparison to the possibility of unhealthy acts like drinking, smoking and behaviours relating to inactivity.

In such a recalcitrant world there is a need for teenagers like those from the youth centre group to acquire a sense of self agency and assume responsibility for issues such as personal health and responsibility (Larson, 2011). Unfortunately in the case of physical activity participation this appears to be negligible, which does not bode well for future participation in adulthood (Telama, 2009; Huotori et al., 2011). While peer support has been advocated to encourage physical activity (Coakley & White, 1992), some participants chose not to participate with friends because they were more of a distraction. Although this maybe a wise decision on an individual level, it may limit opportunities to participate if individuals spend large amounts of time with their peer groups (as they appear to in this case).

Distractions: The electronic generation

Throughout the planning and activities, participants were constantly checking their mobile phones for the expected torrent of text messages. Participants thought nothing of answering their mobile phone, even if they are in the middle of talking to someone else or an activity (particularly evident during the group discussions!). This is not something unique to this population of teenagers. It is clear that teenagers make full use of the widespread access to the internet and mobile technologies (Oksman & Turiainen, 2004). Teenagers in the UK today are living in an evolving technological era that has transformed how people communicate, are educated, work and generally relate to each other. All of the teenagers involved in the programme had a mobile phone and access to a wide range of sound and visual equipment for entertainment purposes (e.g. during the bike session ipods were in constant use). As people are likely to be shaped by the era in which they live (Elder, 1994), it is important to consider how this technological advancement can affect teenage behaviour that wouldn't have been present even a decade ago. Oksman and Turiainen, (2004) argue that, *"the media landscapes created by teenagers serve to articulate their personal space, as well as enabling their presentation of self and defining their relationships to others"* (p. 319). They suggest that youths growing up in a multimedia electronic generation are immersed in new forms of social interactions that are vastly different to previous generations. Although their work surrounds Finish youths, the same can be recognised among the group who are enthralled by modern technology.

Peer pressure, anti-social behaviour and park use

During the group discussions, while the teenagers alluded to some use of parks for physical activity purposes their time in these spaces was largely focused on hanging around or participating in anti-social behaviour. Engaging in drinking alcohol (including binge drinking), smoking and other behaviours such as destruction of property was seen as the norm among all participants involved in the group discussions. To some extent parks were considered as places where these types of activities were likely to take place because they are away from adult supervision and 'out of the way'. This teenage culture of park use among this group is not unique. Activities such as destruction of property and binge drinking are now deemed as the norm among British teenagers (Coleman & Carter, 2005). Comparable findings to those among the youth centre group have been recorded in previous UK studies (Brain et al., 2000; Ward Thompson et al., 2006). Ward Thompson and colleagues (2006) found teenagers cited parks as a place where they can be with peers

and away from adult supervision. As a result they also admitted that socially unacceptable behaviour like drinking and damaging property was more likely to take place.

Although increased supervision in such spaces may reduce antisocial and destructive behaviour, I wonder who could implement such actions when the general attitude towards police and people in authority is one of discontent, disrespect and the feeling of victimisation. This was evident during the lads group discussion where Dave states that *“I proper hate the bizzies, It’s just idiots in uniforms who think they are bigger than what they are.”* Such feelings suggest these youths do not fear the position of responsibility police are in, or understand their role within the local neighbourhood. There is a really deep rooted ‘couldn’t-care less’ attitude towards antisocial behaviour and social systems, which at times I found difficult to comprehend. Such attitudes suggest deeper rooted beliefs that have developed from peers or the imitation of others within their community and perhaps even their own homes (Tekin, 2010). The teenagers are also fully aware of their rights and generally know there is little to no consequence for their actions and therefore have no reason to stay within the law. On occasion the participants described instances where even the police appeared to have reinforced the teenager’s antisocial behaviour with an attitude of ‘out of sight, out of mind’. This implies that the police failed to impose the rules of society within these neighbourhoods, which further reinforces the antisocial behaviour.

If teenagers from these communities predominantly view parks as places where they are ‘allowed’ to carry out anti-social and illegal activities (including drinking and smoking), then it is probable that they are less likely to see them as spaces for physical activity participation (Ward Thompson et al., 2006). This could have further implications as to how they then engage with these spaces across their life span that could impact on the potential biopsychosocial benefits these spaces can offer (Louv, 2005).

6.3.7. The Narrative: 3rd Passage

“Time keeping and attendance!”

3rd August 2009: Boxercise in Reynolds Park

It is a couple of hours before the next activity session. I look out of the office window and it’s raining lightly with dark grey clouds in the sky. The forecast predicts sunshine so I just hope this transpires! Today there is a boxercise session planned in Reynolds Park, which

is situated in the more affluent south of Liverpool. This is a beautiful small park that has the feeling of a secret garden. It is tucked away behind a tall old style brick wall, and if you didn't know it was there you wouldn't know to enter. It is a manicured park and is predominantly used by local residents. I hoped that including this park would provide the element of escapism to somewhere I knew the participants had never been, as well as a quieter, more discrete place for the activity. Two instructors were due to take the boxercise session and Craig had volunteered to come along and join in the session to encourage the group.

By the time Craig collects me from outside the University (thankfully he had a car and was happy to drive) the clouds had cleared and it was a beautiful sunny afternoon. The time had just passed 1.30pm as we arrive at Reynolds Park. With the session due to start at 2pm I thought I would give John a quick call to make sure everything was ok. My face drops as he informed me that only two of the group were currently at the youth centre. Aaron was apparently on the phone trying to track down the other participants who he was sure were on their way. John then informed me that he had spoken to the instructors and changed the start time to 2.30pm, so he would “*definitely*” be on the road by 2pm. Nice of John to let me know before Craig and I set off to the park! So instead we sat apprehensively in the park! As it passes 2.06pm and as my stomach churns I call John in the hope that they have left. “*No we’ve got to get some consent forms signed so we should be leaving soon. There are 5 of them now though.*” John states triumphantly.

I am frustrated! What were these consent forms? I was unaware of additional paperwork the group would have to complete for each session. It was hard enough trying to get the parental consent forms signed in the first place, so if they are now required to complete a form for every session this may be a barrier to activity session participation.

Also, time is proving to be an obstacle with the teenagers. On the occasions when they have committed to either a planning or activity sessions they have rarely been on time, with a lack of apology or any remorse when they are late. Time management is definitely not something they consider important!

It's now 2.30pm and just as the boxercise instructors arrive, my mobile phone rings. It's John just phoning to let me know they are on route and shouldn't be long. I explain the

situation to the instructors and in response one of the instructors asks what the group are like. I am probably a little harsh in explaining they are not the fittest or easiest of groups. But she simply responds positively and admits *"I'm always up for the challenge"*.

It's now 2.52pm and Craig spots a group of teenagers waiting by the main gates. As they approach they are pretty quiet and seem a little cautious. Just then Aaron loudly announces, *"I feel ashamed. I can't do this in the park"*. *"What do you mean?"* I ask, trying not to sound annoyed. *"I feel ashamed, look at all the people"* he responds in a high pitched, whiny voice. I look around. At this time the park seemed particularly quiet with a family with small children, a couple of kids on bikes and three dog walkers in the distance. *"Well they won't know who you are."* I reply with as much positivism I could muster.

Thankfully the instructors are quick to move us all into pairs. I'm paired with Ria who is the only girl in attendance! Lee and Chris are paired with each other and the two big lads Aaron and Steve make up the participants, with John and Craig also working together. Each pair is instructed to collect a set of pads and gloves and the session starts with the instructors demonstrating some simple punches. This develops into a 'race like' situation which required running from one cone to another (approximately 10 meters apart) and adding 5 star jumps or squats at the end. Whilst the initial punching sequence had no opposition, with all the lads thinking they were Rocky Balboa, the idea of the next progression was met with some opposition. *"Running?"* Lee proclaimed. Aaron then turned and added *"I'm not doing no running. I can't do that. I'm not racing"*. Thankfully the instructor is quick to intervene, *"Well come on let's have a go and see how we get on."* Surprisingly this was the only real complaint for the rest of the boxercise session. Once we got started all of the participants engaged in what was being asked and I admit it got pretty competitive. The atmosphere felt positive and everyone was just getting on with the activity and listening to the instructor when required. Ria was happy to work with me and we even found ourselves laughing on several occasions rushing from one side of the grid to the other.

As soon as the session started, the limited time meant it quickly drew to an end. As the group had arrived so late it meant we only actually had around 30 minutes worth of the activity session. The instructors explained that they would have been happy to stay, but being the school holidays had a session elsewhere. So they quickly packed up on time and promptly left. Despite the protests I used the opportunity to remind the group that we would have had longer had they been on time.

Little to no response came back, except for Lee announcing, *"I need a ciggie!"* Aaron smirks, *"Yes lad give one here"*. I was pleased to hear John (a heavy smoker himself) say, *"You have just done all that exercise and taken in fresh air and now you're going to smoke?"* Lee looks back at him and with an exasperated tone replies *"yeab. I need these"*. As they all *'light up'* Aaron looks at John and in a whinny voice asks, *"John are we done now?"* *"Nearly, we are just going to have a walk around the park."* John replies. I explain that there are some nice walled gardens less than a two minute walk away that they might like to see before they leave. Aaron again just looked at John and whined *"I'm knackered, can I just go and sit in the van?"* Turning his back John started to walk adding, *"come on, we are not going to be long."* Aaron starts muttering to himself while taking short puffs on his cigarette, but guessing that the van wasn't an option quickly followed the rest of the group.

At this point Dave came wondering aimlessly through the park gates. Although he had missed the minibus, he still wanted to come to the session at Reynolds Park. When he found out he'd session, he then started to moan at John. I smiled as the word *'time'* was mentioned on several occasions in John's response. The conversation prompts me to catch up with John and ask where the rest of the group were. Apparently Pippa was babysitting her younger sister, Sarah had been grounded for going home drunk the night before and he couldn't get hold of Trina and Paula. I don't know what to say so I just nervously let out a laugh in disbelief. My next line of questioning involved the additional consent forms. John explained that it was policy to have a consent form for every activity that takes place outside of the Youth Centre. I suggest this could become a barrier for participation and we thankfully agree that he would create a form that listed all of the activities and dates that could be completed for the rest of the programme.

As we approach the walled gardens cigarettes were again distributed, with the previous fag butts disposed of in the nearby bushes! I did make a comment about littering but was totally ignored as the spark off the lighter started again. When we finally enter the walled garden Lee starts to make a big fuss about hay fever and places his coat over his nose. This resulted in everyone else except for Steve copying Lee and placing their coats over their noses and complaining of hay fever. Craig tried to intervene and coax the group into appreciating the space but it was as though their attention had already gone and the peer pressure of 'non-appreciation' had already set in. So rather than fight a defiant group of teenagers we quickly left and headed back to the minibus.

I can't believe what I have just witnessed. This is a group of teenagers acting like 5 year olds with their coats over their noses. There was an

older couple sat reading in the walled garden and I am totally embarrassed by the majority of the groups behaviour. Steve is the only group member who isn't complaining and is just getting on with what is being asked!

When we arrived at the minibus, Lee and Craig light up their third successive cigarette. This meant the group were then waiting and chatting outside the minibus for the lads to finish. I personally would have told them to put the cigarettes out, but John just let them continue without comment. As the 45 minutes spent with the group seemed to have totally exhausted me, I gesture to Craig and we say our goodbyes. In the car Craig admits, *"I have never seen the likes of what just happened, and I can't believe how much they smoke! How the hell can they afford it?"*

5th August 2009: Sports session in Calderstones Park

It is the morning of the activity session and to try and overcome the negative aspect of attendance rates and time keeping I start to contact (or attempt to contact) participants. I hope adding these extra measures in to 'remind' participants of activity sessions will help attendance. Although University ethics makes this process difficult as I am unable to contact participants directly on their mobile phones. Instead I'm required to call family homes. Despite the participants having stated they don't mind me contacting them directly, I have to ask John to call personal mobiles from the youth centre where he is permitted to do so. Working within these boundaries can be frustrating, especially when working with a group who seem to live independently from their home and family lives.

This morning felt like a feat in itself as I can't get hold of John either! I manage to get through to Pippa, who quickly apologises for not attending the previous session explaining that her mum had to work, so she had to babysit. I graciously tell her not to worry and I would see her later. Pippa then agreed she would also call Trina and Paula to remind them of the session. The second participant I managed to get hold of was Aaron. He didn't sound compos mentis at all as he let out a huge yawn down the phone. *"What are we doing"* he asks half asleep. I remind him of the session and a weak sounding *"o yeah, right O Denise I will see you later"* comes the reply. Finally I call Steve's home and leave a message with his sister to remind him the session is on. I must admit that although I couldn't get hold of

Ria and Lee I assumed they would be there due to past commitment. When I eventually get through to John, he reminded me that Sarah wouldn't be attending as she was still grounded and that he would contact Chris and Dave. He agreed with me that Ria and Lee were likely to be there anyway so I was happy enough.

I admit that I am starting to take over more of the organisation and participant chasing just so I can be sure it is being done. It is time consuming and frustrating, but it feels necessary to encourage group participation.

As the afternoon approached I started to pack up the sports equipment required for the session. Craig couldn't join us today, and as there was no instructor booked it was agreed John and I would run the sports activities. Rounders, quick cricket, volleyball and tag rugby were the options. I look outside and the sun is shining with hardly a cloud in the sky. Perfect conditions for a trip to the park! As it is warm outside I make a note to pack a few bottles of water just in case the participants forget to bring any themselves!

I drive into Calderstones Park 15 minutes before the group is scheduled to arrive. As I walk over to the agreed meeting point I'm pleased that despite the good weather there is still plenty of space for us to set up the planned activities. As the sun is shining I take a seat and relax for 5 minutes... Twenty minutes later and the relaxation transforms into annoyance. There is no sign of the group and John is not answering his phone. A further 5 minutes pass and my phone rings. It's John letting me know that they were on their way and that there had been a few problems. He didn't disclose any further details. It is 2.28pm by the time the minibus pulls up, with far less participants than I was expecting! Trina and Dave emerge from the minibus holding hands and snuggling into each other. They are quickly followed by Chris and Lee who both proceeded to yawn and stretch as they jump down from the minibus. John emerged from the drivers' side, while a small lad climbed out from the passenger door. I guessed this was John's son Ryan. But no-one else was present. My heart sank.

I'm really angry and very disappointed. I made a concerted effort to phone participants this morning to try and encourage attendance, but despite positive feedback their words have not transpired into actions.

They all ambled over to where I was now stood. Trina and Dave were now fully embraced and kissing each other, while the other two headed straight for the equipment bag and proceeded to pull practically everything out. John walked over and nudged his head to signal me to one side. *"Sorry we're a bit late Denise, we've had a few problems with the group."* He paused momentarily, then calmly continued *"Dave and Steve are not getting on because Steve's family believe Dave and his brothers have robbed their house."* *"You're kidding!"* I said in a shocked tone. *"I'm afraid not. You see Dave is seen as a bit of a hard man and so are his older brothers. Steve's dad reckons it was them who broke into their house last night so it's all kicked off between the families. Steve's dad won't let him come today because Dave is here and as there is no evidence suggesting Dave and his brothers robbed his house, I can't ask Dave to leave the programme."* While I am stood in amazement, John is very calm as if this is an everyday occurrence. He then adds, *"Also I spoke to Aaron about an hour or so ago and he declared he wasn't coming anymore. When I asked if it was because of these rumours he played dumb to not knowing anything about the robbery so I really don't know why he has changed his mind about coming. Although if I'm honest I suspect it is because of this."* As we talk Chris proceeds to boot the rugby ball as high as possible, while the other 3 start to light up cigarettes. Just as Ryan comes and drags his dad's hand as if to gesture him towards the sports equipment, he adds *"to be honest if Steve did come there is a good chance there would have been fifty cuffs, and as Dave is a bit of a hard nut he probably would have knocked him out."* On this note he turns and walks towards the equipment, trying to no avail to stop Chris from booting the ball towards a group of sunbathers and the rest of them from smoking.

I'm in amazement and don't really know what to say. By keeping Dave on board I fear that Steve's dad may now fully exclude him from the programme. Steve was the one participant who seemed to be really engaging in the activities. The lab visit alone had contributed to his smoking cessation and he was growing more conscious of his need to do more exercise and explore more places. I wonder if this incident has become another turning point in the programme. After meeting Dave last week and hearing how brash he was then, I wish John had not asked him to take part in the programme. But I think this is beyond my control.

As I turn back towards the group, John is again asking Trina, Dave and Lee to put their ciggies away. This causes a series of giggles and a short exchange with John, resulting in the 3 of them running off round one of the bushes about 50 meters or so away. Every

second or so one of them would poke their head over the top of the bush like a meerkat. Instead of intervening John just pulls a disapproving face and looks toward Ryan, *"well you are much better behaved than them, they are acting younger than you!"* Ryan just turns and grins back. I couldn't help but agree.

As Chris and Ryan busy themselves rolling out the volleyball net, the others meekly walk back giggling uncontrollable between them. Thankfully as return they start to help put the volleyball net up. A few minutes later we had some sort of organisation... which only lasted for a few minutes. Trina declared she was bored and promptly sat down dragging Dave with her. As they canoodled and kissed each other (to which John said nothing) it was me and Chris against Lee, Ryan and John at Volleyball. None of us were any good, but we all seemed momentarily to be having fun. A few minutes later a miss hit from Lee sent the ball flying off. As Chris followed the ball, Lee declared he *"was dying"* and exasperatingly adding *"I need water"*. It seemed the volleyball had ground to a halt. As I proceeded to dig the water out of the bag, Ryan collected the quick cricket equipment together. Thankfully his enthusiasm enticed both Dave and Chris who sounded keen to *"have a go"*.

While Trina sat momentarily away from Dave, I take the opportunity to ask where Pippa and Paula are. *"Pippa's gone shopping with her mum and I haven't heard from Paula today!"* she snapped back at me. She then proceeded to close her eyes, lean back on her hands and look up towards the sun. I promptly left her, collected the rest of the cricket equipment and walked towards the lads. Lee was now up and the lads were discussing where to place the quick cricket posts. Once decided they proceeded to let Ryan have first go at batting. After everyone had batted and we were rallying to start the sequence again, Trina stood up and sheepishly came over to join us.

It was just after 3pm when the game came to an end and Trina, Lee and Dave proceeded to light up another cigarette and lie down on the ground in sunbathing poses. John tried to get them up again, but to no avail with Dave just declaring he was *"knackered"* and *"can't be arsed"*. As I pulled at the tag rugby chords with Ryan I tried in vain to get them back involved. *"Come on we haven't got long left we may as well make the most of it"*. At this point Trina just rolled over onto Dave and under her breath said *"O just fuck off"*. John picked up on this and quickly asked *"what was that?"* To which Trina replied with one of her sarcastic smiles *"nothin"*.

After this the session quickly drew to an end. Apart from Chris (and Ryan) none of the participants helped to collect the equipment, but instead just chose to light up another cigarette. Once packed we all bumbled back to the car park. Ryan said an enthusiastic thank you to me, with Chris shyly following. When prompted Lee was the only other person to say “thanks” and “see ya”, although this may have been because Trina and Dave were back kissing each other enthusiastically.

I'm relieved to see the minibus pull away. I have found this session extremely difficult and emotionally draining. The lack of enthusiasm, respect (even self-respect) and concentration was frustrating. The energy levels combined with behavioural problems, total disregard and general attitudes towards the activity session was stagnant to say the least! But what can I do? Raise the fun element? Just let them do what they want? Well they do this anyway... It seems that these teenagers are too used to doing what they want, when they want.

10th August 2009: Circuit session in Sefton Park

I had spent the morning calling around the participants again. I had managed to get hold of Aaron, who did apologise for not attending the previous session as “something came up” and said he would be there today. As I spoke to Pippa I couldn't help but ask why she hadn't made the previous session. She informed me that she hadn't gone shopping, but her mum did and so she had to babysit again. Her mum didn't make it back in time for the start of the session and although her stepdad was in he wouldn't let her go. I feel sorry for Pippa. From what I understand her stepdad is extremely strict with her, and it sounds as though she is often used as a babysitter for her younger sister. I thought that the added responsibility at just 15 might explain why she seems more mature than the rest of the girls in the group!

Today though Pippa said she would definitely be attending, as would Trina who happened to be sat next to her when I phoned. I left messages for Chris and Lee, but despite several calls was unable to get hold of the rest of the group. However I didn't call Steve's home as John had confirmed he wasn't allowed to attend the group while Dave was present. As John felt he could not ask Dave to leave purely on accusations of burglary, he could not intervene. Although he did state that “I would have preferred Steve to stay over Dave, as I think he was getting more out of the programme.” I couldn't help but agree.

I feel it is a real shame that Steve is not allowed to attend the programme anymore as a result of Dave. Whether the rumours of burglary are true or not, it has certainly not been a situation I had expected to face when I started this programme. As a reason for participant drop-out it is certainly a first for me!

Craig has volunteered to take the circuit session today. This is one of the activities the group was very enthusiastic about during the planning meetings so I am hoping they fully engage in the session. Craig and I gather the equipment required for the session and head off to Sefton Park. Consistent with the weather for most of the summer, it had been raining in the morning but the sun was starting to peek through the grey clouds. It wasn't as warm in comparison to previous days, but it was comfortable enough for some fitness in the park. We head to one of the more secluded areas in the park. After the equipment was arranged for the circuit session we return to the car and wait. And wait. And wait some more. The group are now 25minutes late. Craig notes how they are always late and I agree.

The minibus finally arrives at 2.34pm. Although they were late I was relieved to see more bodies on the minibus than for previous sessions. So much so that both the side and back door of the minibus opened as the group spilled out into the car park. Trina and Pippa were giggling as they climbed awkwardly out of the side door linking arms. They were closely followed by Aaron, who I could hear mention the words "boobs" and "sex" as he lumbered down the steps with a huge grin on his face. Lee and Sarah were next, both looking pensively around. Meanwhile Dave had jumped out the back door, followed by Chris and another lad who looked around the same age. He was much smaller in height and had a baby-face, but sported the same black tracksuit bottoms, bright white trainers and black hooded top that the other two were also wearing. He was small framed and from his appearance looked like he was a fairly active teenager. He was talking and laughing with Dave and Chris so I assume they all know each other. I admit I was relieved that Trina and Dave were not all over each other as they had been at the previous session. I didn't bother enquiring why.

Just as John walks over holding Ryan's hand he cheerfully greets us "Sorry about that". I'm guessing he is referring to them being over half an hour late but he doesn't elaborate anymore on the matter. 'We're just missing Paula and Ria today, I believe Ria is babysitting and I couldn't get hold of Paula! But Paul, Chris's cousin, has come along. I thought it would be ok as now we

have lost Steve he can make up the numbers.” He smiles at me. I look back at him with gritted teeth, “Does he know anything about the programme?” I ask with a fake smile. “Chris has said he will tell him and I have passed on all of the forms and got his mums verbal agreement to come today, so it’s all sorted.” He replies back triumphantly.

All sorted?! I am fuming inside but am trying desperately to keep a cool exterior. Bringing in participants as and when keeps changing the dynamics of the group. The impact of Dave’s attendance has already been clearly visible with the resultant absence of Steve. The programme is turning into a free for all just to make up the numbers, and not as intended to work with youths who could do with increasing physical activity levels while using parks in a different way.

Craig calls the group over to the circuit area. Mutterings about the wet grass and getting trainers dirty started, but Craig was quick to address the group and explain what they would be doing in the session. They were to start with a quick game of catch to warm up, followed by the circuit session. The group ambled out to the middle of the grass area, away from the equipment that was starting to gain attention from Dave and Aaron! Craig split the group into two teams, which also included Ryan, John and me. During the warm up Dave, Chris and Paul proceeded to dominate the warm up game, making it much more competitive than was necessary. Craig tried to diffuse this by adapting the game so that to ‘score’ every person in the team had to receive the ball. While this enabled inclusion, it also put pressure on the participants to ‘perform’. Lee in particular became increasingly stressed by the situation “*I’m not doing it, this is stupid*”. Others soon started to emanate his response, with Sarah declaring “*I can’t do this*”. Ironically the rest of the lads just ignored them and continued to play the game as though they were invisible.

I believe Paul, Dave and Craig’s dominance of the warm up game was part of the reason the others lost interest and disengaged before the time was up. This is specifically why I didn’t want teenagers who were as sporty as these boys on the programme as it clearly prevents those who are less able to ‘compete’ from participating fully. Although Craig is applying valid steps to try and diffuse the growing competitive situation, it is clear their dominance is having an effect on some of the original group’s ability to participate.

As we move back towards the circuit area Lee and Sarah look miserable. Although they have both stopped moaning, their body language suggests they are starting to withdraw and really do not want to be here. Craig is again quick to group the participants, telling each participant who they would partner. A minute or so later 7 pairs were stood beside different work stations. I'm stood with Sarah, with Trina and Pippa making up the other female pairing. Chris is paired with Paul, while Lee seems happy to be paired with Ryan. John volunteers to go with Aaron who has started to pull faces and declare *"I won't be able to do any of this"*. As Dave was talking cockily about how he was going to *"smash everythin"* Craig pairs himself with him (I have a feeling Craig is going to give him a good workout). It is agreed that we would work for 30second intervals, which is half of the time Craig would usually apply for this type of session.

By the end of the session all of the participants apart from Trina, Paula, Lee and Ryan are complaining they are *"Hurting bad"* or *"can't breathe"* with added comments that *"I'm gonna die"*. We hadn't done what I would call a hard workout by any means. I knew Craig had reduced the time we were working on each apparatus to keep the session going as best he could before Dave, Paul and Chris started to really rebel. Throughout the session Dave's face turned to grimace, while his cockiness was quickly replaced by repeated complaints. By the warm up it was clear he could run, but when asked to do dips, push-ups or sit-ups he was clearly struggling; as were Paul and Chris. Interestingly Paula and Trina had just got on with things and were working really well with each other. Lee was obviously enjoying the opportunity to support and encourage Ryan in a big brother fashion, and as a result worked out much more than I had expected him to. While Aaron physically struggled with the session, and vocally complained throughout, John kept him motivated in a constant competition.

Craig attempted to engage the group in a warm down, but other than Trina, Paula, Lee and Ryan his efforts were in vain. John had left to take a phone call and the rest of the group were now just complaining between them. *"Come on lads, Sarah you can do this"* Craig strained. It was clear he was starting to lose patience. *"Just leave them to it"* I quietly say to him. We continue with the warm down while the lads proceed to pick up the ball from the warm up and kick it about, and Sarah walked aimlessly around the circuit area mumbling!

I have worked with teenagers in the past, but never have I had to deal with such blatant ignorance and disrespect. I am angry at how some of

the group are treating Craig - someone that they know is volunteering to do this activity with them for FREE!! I really want to shout at the members of the group who are not paying attention. But I know this would just disengage them even more, and who knows what other backlash would come my way. As I am not the official practitioner I do not believe it is my responsibility to address their poor behaviour, but by not saying anything and letting them get away with it am I encouraging the behaviour?

As the group climb back onto the minibus John walks back towards me and Craig. *"What shall we do about Paula not being here again? Croxteth was a treat session and she hasn't attended anything yet, but I bet she turns up for that!"* he states with a stern face. *"I don't know"* I start to reply then pause. *"It doesn't seem fair and she has been pretty vacant without any communication. I personally don't know if I would let her, but it's really up to you and whether you think she should."* John takes a deep breath and replies, *"I'll see if I can get hold of her and find out what she's thinking and whether she still wants to be involved."* He then says his goodbyes and slams the side door shut before climbing in the driver's seat.

As Craig and I drive off he turns to me, *"that was one of the hardest sessions I have ever had to deliver."* I really feel for him *"I know, but you know what you did really well with keeping them moving. I couldn't have done that."* He then laughs and says *"Well at least I got Dave to shut up for 5 minutes – the big hard man wasn't as strong as he thought."* I laugh back and smile for the first time since the start of the session.

Reflective stop off 3

Participant time keeping and motivation

It is suggested that teenage participation in structured programmes can assist in steering them away from problem behaviours, increase life skills, and helps to prepare them for lifelong social engagement (Eccles & Gootman, 2002; Durlak & Weissberg, 2007; Little et al., 2008). However, for such benefits to materialise there is a need for participants to fully engage in a programme. As a result of not fully engaging in this programme, some participants display a number of social shortcomings. I have found many of the basic

social fundamentals such as the ability to listen, time keeping, respect for self and others largely absent during some of the activities. By far, time keeping and unexplained absences are two of the most frustrating elements of interacting with some of the teenagers. For this project at least, time does not seem to be important to many of these teenagers where participants are consistently late or absent without any or prior explanation. Although some genuine reasons have been cited (e.g. babysitting), the majority of cases remain unexplained. I believe that someone who is late (or doesn't turn up) is being rude and discourteous to others who have to wait for them, but this concept doesn't seem to register for many members of this group. One explanation for this is a lack commitment and motivation to participate in the programme. Teenagers are generally more motivated to participate when they are doing something they want to do and that they enjoy (Hansen & Larson, 2007). Such intrinsic motivation leads to greater engagement and higher levels of development as a result of the programme (Brustad et al., 2001). Therefore the actions of some suggest that they are not really interested, although conversely once participants make it to sessions they tend to enjoy the activities. Therefore it might be that motivation is not quite high enough to push some of the group to fully engage as expected (Hansen & Larson, 2007).

Practitioner engagement and participant behaviour

While John has displayed empathy and understanding with individual group members, on many occasions he has failed to deal with socially unacceptable behaviour. One example (of many) was his failure to deal with participants running off for a smoke during the sports session! As participants returned it was as if they knew there would be no consequences for such behaviour as they simply continued with the activity as though nothing had happened. The lack of rules or John's inconsistency in dealing with unacceptable behaviour is likely to have impacted the way in which some participants chose to engage in the programme (Roth & Brooke-Gunn, 2000; Larson et al., 2009). While John may not have wanted to create barriers to participation by challenging unacceptable behaviour, it meant participants knew they could push the boundaries. Conversely, the boxercise coaches didn't accept poor or defiant behaviour and proved that when participants were coaxed and pushed they would do what was asked of them. In this instance the instructors were firm with participants who showed reluctance to participate and kept the session going to keep their interest.

It has been suggested that teenagers' actions and logic can be understood as a rational response to the structural conditions they are embedded in (Hine, 1999), therefore clear

rules and guidelines for behaviour would provide an appropriate structure for youth programmes (Roth & Brooks-Gunn, 2000; Larson et al., 2009). Successful teenage interventions are more likely to be effective when they are staffed by adults who communicate clear guidelines, are well trained, creative and have the ability to build long term relationships with participants (Masten & Coatsworth, 1998; Hall et al., 2004).

Throughput requirements and a change in group dynamics

Without any consultation with me, or to my knowledge the wider group, John invited two new participants to the programme. This in turn seemed to have an immediate effect on the group dynamics, particularly with some of the girls who were personally attracted to Dave and some of the lads who seemed negatively influenced or even bullied by him. The most notable change to the group was the withdrawal of Steve following an alleged instance of criminality by Dave towards his family.

John's intention to include the two new participants appeared to be opportunistic as they happened to be hanging around the youth centre on a day we were supposed to have an activity. John's actions were largely driven by the need to attain a minimum number of participants to the programme, which neglected the purposeful nature of the original selection and impacted existing participants. In this instance, although Chris and Dave's inclusion meant the programme hit the funders expected target of ten participants, it also appeared to have a negative impact on the group dynamics.

John's urgency to include Dave and Chris highlights the imperative for participation by numbers and the need to hit targets that is often advocated in local interventions. Two principal drivers for target driven programmes have been the development of systems for performance management and accountability using statistical data (Clarke and Newman, 1997), and the increased prominence for 'evidence-based policy' requiring quantifiable effects of public policies (Davies et al., 2000). In the introduction of this chapter I outlined government targets that were taken into consideration when looking at the project design and the local data collection requirements for the programme that help to demonstrate whether these targets have been achieved. While the audit data required for the programme may tick all the boxes, it fails to show what impact such measures have on the programme (Pawson & Tilley, 1997). In the required data collection of participants at most, Steve would most likely be recorded as a drop-out, with perhaps a miscellaneous label as to why. Without further investigation the story of possible criminality from one of the group members would not have been revealed as the real reason for Steve's dropout from the

programme. While I hope this instance is an anomaly, it may be representative of the complex communities that health experts are trying desperately to impact. Although Steve seemed to be gaining small but perhaps significant steps towards healthier choices and accessing green spaces for positive activities, something that was beyond his control may have undone any positive outcomes or further impacts that could have been achieved.

6.3.8. The Narrative: 4th Passage

“Group dynamics”

12th August 2009: Jungle Parc in Croxteth Park

I am really looking forward to today’s session. We are going to Jungle Parc, which is located in Croxteth Park. Jungle Parc is a tree top adventure course, incorporating zip wires, cargo nets, climbing blocks and tricky ladder and swinging walkways. As the most expensive activity by far, I view it as more of a ‘treat’ for the participants. Although as many of the participants have informed me on several occasions, they get to do this type of stuff along with “Resi’s”(weekend residential courses) all the time! So maybe not as a big a treat as I would have thought when I was their age, or even now...

Despite some rain in the morning, it is now dry outside. As Craig and I arrived at Croxteth Park I was shocked to see the minibus pull into the car park behind us. They were a whole 3 minutes early to which Craig exclaimed *“bloody hell, they can be on time when they want to be!”* My thoughts exactly! They all jump out of the minibus with varying degrees of excitement and instantly start to walk past us into the park following sign posts detailing the direction of Jungle Parc. Craig had started to walk with Aaron as I waited for John, who again had Ryan walking beside him. *“Alright Denise”* he said with a warm smile *“How are things going?”* I look towards John, *“Not too bad, I’m just glad the weather has held off. I was worried for a while there that we would not be able to go ahead with the session today.”* *“I know, we we’re thinking the same aye Ryan”* he responds, giving Ryan a pat on his head.

I then turn to the business side of the session, *“I didn’t see Paula or Sarah, did they not show up?”* I ask. *“Sarah had phoned to say she was scared of heights and didn’t want to come to this one. Paula did show up but I told her she couldn’t come because she hadn’t been to anything else.”* I pull my face and ask *“Was she ok with that?”* John looked towards me, *“She took it ok actually. It was the rest of*

the group who kicked off, a few of them said they wouldn't come then, but when I gave them the ultimatum they soon got on the bus." I smile wryly, *"that sounds about right"*.

As we reached the entrance to the Jungle Parc the ground was damp in the wooded area from the morning rain. But we were soon informed the tree equipment remained safe and dry enough to use. With laughs and jokes the group were kitted up with harnesses and karabiners ready for the activity. A mini fashion show proceeded with most of the lads feeling the need to lunge several times and stand with their pelvises stuck forwards to emphasis the harness that was now strapped tightly on them. I make a comment about them showboating and although Dave responds with a cheeky, but smutty comment, I also get a strong sounding *"Just fuck off you"* from Trina. Ria said something to the same effect. I turn towards John in the hope of an explanation as to why I was getting such backlash, but he was discussing Ryan with the instructor. I guessed that this had something to do with Paula!

As I had expected Ryan was too small to go on the main rope course, so he was going to have to go to the children's section. Because he could not go alone John accompanied him, leaving Craig and me with the over excited group to tackle the main course.

Ryan's involvement has never been discussed. While I genuinely like him, and do think he could actually teach the teenagers a thing or two about behaviour, his presence has sometimes meant John has not been fully engaged with the programme. His involvement has on occasion distracted John from his practitioner role and left the responsibility of dealing with and guiding the teenagers to Craig and me!

- 4 As John and Ryan head to the children's area, the rest of us are ushered toward the start of the tree course and given a safety briefing from one of the staff. As most of the group interrupted the instructor on several occasions, he delayed our start and went through the main safety issues again *"just to make sure you get it"*. Eventually the group remained quiet(ish) for the whole briefing so we could get started. Once the briefing was over we were directed to the course start point. Dave, Chris and Paul pushed their way through the rest of the group all vying to be the first up the ladder. Aaron followed, with the rest of the group bumbling behind. Craig volunteered to go next so he could keep up with the lads, who were already racing off through the course. I offered to go last just to make sure everyone was ok as we went round. As I

started to walk up the first ladder, Trina turned around and spitefully said, *“why don’t you just slip off and die”*. This was followed by a sly smile. Craig heard and quickly replied *“Oi, I don’t think that’s very nice is it!”* Trina just simply turned to him and said back *“well she shouldn’t have stopped Paula from coming today. That was well bitchy!”*

I can’t believe what I am hearing. I am really angry to find out I have been used as the scapegoat for Paula being turned away from the session. I feel quite upset, but try not to show it. I’m not 100% sure what was said, but it appears I was used as the main person who said Paula couldn’t attend the Jungle Parc because of previous no shows. Although Trina has never overly been nice towards me, I fear that she is going to get worse and she seems to be influencing the rest of the group as well. Any rapport I have built up may just be about to be undone.

Trina was making sure I knew how pissed off with me she was for virtually the whole session. Although Trina was the main perpetrator of nasty comments towards me, even Lee and Ria kept commentating stating I was *“bang out of order”*. I don’t know if I was right or wrong, but I chose not to engage in any conversation with the group over this matter and instead used the activity to communicate to them as and when they needed my assistance to get across obstacles - which was more often than I think they would have liked.

By the end of the session we had spent over an hour completing the course. The lads in particular showed excitement and were *“buzzing”* when we approached to the last zip wire. The course seemed to turn the lads into giggling young boys, all over excited and bragging about what they had just done when we met back up with John. They were the only ones to say thank you to me and Craig as we left the area. Like after the cycling, Aaron was grinning from ear to ear *“that was well boss Denise, I could do that again. Can we?”* I smiled for the first time in a while today, *“Not as part of this programme, but if you speak to John maybe there are other opportunities? I thought you did this type of stuff all the time?”* He looked at me with the grin getting even bigger *“Well yeah, I suppose we have a resi coming up soon and we get to do this outdoor stuff then”*. Just then Paul interrupted and asked *“why can’t we just do stuff like this? Quad biking would be well boss too – why can’t we just do that?”* I look at Paul *“I’m afraid that is not the idea of the programme. It’s supposed to be about doing fun activities in local parks, and I don’t think tearing one up on a quad bike quite fits, do you?”* He looked back at me half disappointed, *“Well*

no but it would be boss." I am guessing that Paul wasn't informed as to the ethos behind the programme and the idea of using parks for physical activity pursuits.

17th August 2009: Manhunt in Croxteth Park

I had a work related meeting this morning, which meant I was unable to do any phone calls to chase participants for today's session. I know 3 of them are on holiday this week (Paul, Chris and Lee) so we are already down on numbers. Although I did manage to speak to John beforehand and he said he would do some calling around for me. We have someone from Croxteth Park running a man hunt session with us today, so I'm hoping the numbers are ok to make it worthwhile!

As I prepare to leave for the session its cloudy outside, but dry and relatively warm; good conditions for the manhunt activity in Croxteth Park. John had sent a text to say he was heading to pick up the minibus and looking at the time I guessed this meant he was likely to be late! Craig was due to join us, but as he had managed to get some paid work for the rest of the summer it meant he was no longer available. But I can't complain; as a volunteer Craig has been invaluable at getting involved with the sessions and working with the teenagers.

After a tiring cycle from the University, I'm sat in Croxteth Park waiting for the session instructor. Just then the instructor (Lisa) pulls up in her car. Lisa was a slightly larger burley woman with a strong Yorkshire accent. She had a rugged outdoor look, wearing Khaki trousers and a green polo shirt branded with the national trust logo. As she unloaded the refreshments and equipment into a shopping basket, I explain the group is running a bit late but shouldn't be long. *"How many do you think we will have"* she asks. I smile and trying to sound as enthusiastic as possible, *"I'm not sure. I know there are a few people away on holiday this week so we are a few down."*

In essence I have just lied to the instructor as if I'm honest I have no clue how late they will be or how many of them will turn up. While I am trying to be enthusiastic about the session ahead, if I'm honest I am not feeling 100% and am completely dreading it. More specifically I'm dreading seeing some of the group members – particularly Trina who was rather nasty at the previous session towards me. I don't know if I have the energy for her today.

Today they were 23 minutes late and from what I could see we were low on numbers! This was confirmed when only Trina, Dave, Paula and Pippa jumped out of the minibus. All the girls were wearing different coloured valour tracksuits, while Dave adorned the usual black trainers and t-shirt, with a cap perching on the top of his head finishing off today's look. I knew Ryan would not be accompanying John today as he was too young to take part in the planned activity. The instructor turns to me and asks, *"Will that be it?"* I look back at her, *"I guess so. Will that be a problem?"* She smiled back, *"No that should be fine, I'll just improvise a bit."*

As the group raggedly assemble in front of us, I introduce Lisa and let her explain the days' activity. It was clear Lisa had worked with teenagers before with the way she spoke to them, particularly with the subject of smoking. *"Right. Do any of you smoke?"* A chorus of *"yeah"* came back. *"There is a bottle in there with a little bit of water"* Lisa points to the shopping basket, *"as far as I'm concerned I'm not going to see you smoking, but if you can put the butts in that bottle then it won't accidentally set fire or something like that, and it's not litter either as those things take ages to break down in the environment."* She pauses and looks directly at the group, *"so I'm not saying you can and I'm not saying you can't OK?"* They simply nod back. Lisa then asked Dave to carry the shopping basket to the activity location. As we walk off Dave huffs loudly and picks the shopping basket up. *"Do I have to carry this"* Dave asks in a whinny child like voice.

"Why is it dead heavy" Lisa Responds.

"No" He snaps back while lifting the basket like a dumbbell.

"What's the problem then?"

"I feel ashamed"

"Why?" Just as Lisa asks this the 3 girls start to giggle at Dave.

"I have to live round here ya know"

"Really?" Lisa responds with a sarcastic undertone *"And they will probably just ask for a cuppa off you"*.

Dave huffs loudly again but continues to walk holding the basket. Lisa then ignores him and turns to the girls asking if it would be ok to take photos during the activities as a record of attendance. *"Well it depends where they are going"* Paula Responds jokily, while the other 2

start to giggle. Lisa smiles *‘Just in our records to show the type of activities we can offer to groups. I’m dead proud there’s 3 girls coming to take part today because usually it’s all boys.’* They all sniggered then Trina replies, *‘That’s all right then, but we have to see the photies before as I’m not having any out of me looking a show!’* Lisa agreed.

A few minutes later Lisa stopped in a large wooded area that had clearly been marked out with red and white striped tape. *‘Is this where we are goin?’* Paula proclaimed in a high pitched voice. *‘Yeah that’s where we will be playing. I’ve taped it off so people know we are there.’* Just as Lisa said this Paula, Trina and Dave started to walk off into the wooded area so she quickly added *‘but can I just say, can you just come back here a sec.’* The group promptly reassembled on the dirt track. Lisa continued, *‘You will notice the tape goes round trees and it doesn’t go in straight lines because I don’t want you to go into areas where you might hurt yourselves. So please don’t go down there’* As Dave pulled a face, John supports Lisa and sternly adds, *‘Are you listening to that because that’s really important. Stick to it!’* Lisa then proceeded to point out a few areas where there were pits and asked participants not to damage the area during the activity. They all nodded and looked as though they were actually paying attention as opposed to agreeing so they could just get on with the activity.

Lisa explained that we are all going to camouflage ourselves up, then start a game of hide and seek. They were instructed to find old branches and dead leaves to do the camouflage and Lisa provided elastic bands, tape and camouflage face cream to aid the process. The group jumped at the opportunity to get camouflaged up and within a matter of minutes they were all helping each other to stick leaves on, make head dresses and even pattern the face paints. We all helped each other to get ready, which made for a good atmosphere with laughter and friendly banter. By the time we were all finished I don’t think we were quite ready for sniper training, but we had all made a good attempt. Just as we are about to get going Lisa asks, *‘So how are we playing it? Do we want to pick one person who do you guys want to hide and we all come and find ya?’* They all laugh and Dave responds, *‘Yeah that one.’* *‘Right go on then, I’ll give ya 5 minutes.’* Lisa says as the group runs off. As we wait 5 minutes, Lisa explains that she had brought photos of camouflaged animals and had some resources for the group to look at during the tea break. These resources were to try and get the group to understand a little bit more about the area we were working in and the importance of preserving such places. *‘Sound, make sure they learn something’* John smiles.

The group seem at ease with Lisa and for the moment things seem to be going fine. I was shocked at how enthusiastic all of the girls were to get stuck in with the camouflage task, even adding the face paint to their

already made up faces. It seems that as Lisa is so at ease with everything it is keeping the group relaxed and they are doing everything asked with minimal complaining. It will be interesting to see how the group react to the pictures and the nature related information she delivers during the break.

We start the manhunt and it is only a couple of minutes before we hear uncontrollable giggling from behind one of the trees by the edge of the zone. Paula peeps round and once she realises she has been found lets out a full bout of laughter. Within 10 minutes we have sought out all of the girls, but Dave was nowhere to be found. After 20 minutes with 6 of us searching for Dave, we were adamant he must have strayed outside of the area as none of us could find him anywhere! Lisa shouted for him and all of a sudden he stood up about 10 meters from us from under a fallen log. Leaves fell off him like confetti. He had managed to wedge himself under the log and just completely covered himself in leaves. We all laughed uncontrollably at the sight of him brushing all the leaves off while grinning like a Cheshire cat. We proceeded to play again, but this time it was Lisa and Dave doing the seeking. They found us all in less than 15 minutes. By the time we had finished the games we all had scrapes and dirt all over us from hiding in obscure places and running through the brambles. But no-one seemed to mind.

After the games we stopped for a tea break. As the tea and biscuits were passed around we gathered in a circle and sat as a group for 5 minutes. Lisa starts passing the nature pictures around explains the link between nature and camouflage, which did engage the participants. John was influential at this point at keeping the conversation going and ensuring all the participants engaged through asking their opinions. They then move on to talk about pulling down trees and even the health benefits of trees to our eco system.

A few minutes later Paula starts to fidget and vigorously scratch her leg 'Ugh... I think I've been bitten' she screeches. 'Hey can we move from here please?' Dave asks, to which John replies 'why?' Dave just looks back with a stern face and says 'Cos we're getting eaten alive her John... o a spider.' Lisa responds by handing out some bite spray to Paula and then continues talking about the nature photos and the art of camouflage. The conversations shifts to I'm a Celebrity and eating bugs, which brings back the laughs and jokes. As Paula Dave and now Trina become more aware of the midges starting to gather around us, they begin to fidget

even more. We agree to take a slow walk back to the minibus via the fields where some horses are kept.

I am shocked at how engaged the group are with Lisa on the benefits of nature and the art of camouflage. All four members of the group have been fully engaged in the session.

As the group get back to the minibus Dave, Trina and Paula proceed to light up. Lisa passes them the bottle, which already contained a couple of cigarette butts. As each of them finished they proceeded to post their empty butts into the bottle. Lisa takes the bottle back but doesn't replace the lid just yet. She holds it out in front of the participants "Now look at that water and just think what that smoke is doing to your insides. It smells awful as well" she says taking a small whiff of the bottle. "Let's see" Paula screeches. Lisa passes the bottle over to them and they all proceed to smell the contents. High pitched protests of "ugh" and "that's disgusting" came back, along with a couple of empty promises of "That's it, I'm givin' up." As the group leave they are all very polite in thanking Lisa and me for the session, and all waved as they left the car park. I thanked Lisa and we parted ways.

Today now feels like a good day. There was no further back lash after the previous session and everyone was engaged. Perhaps woodland based activities with some conservation work or information included is the way forward with this group... It certainly worked with these participants!

19th August 2009: Visit to Sefton Park

Today the group were supposed to be heading to Sefton Park for a walk around the renovated pond area, a visit to the palm house and a game of rounders. Unfortunately I was too ill to attend, which meant John was left to arrange the session. I spoke to John at 4pm to see how it went and he informed me that 3 of the group were still on holiday, and only Ria and Aaron were there for the start of the session. As there was only the two of them they agreed that instead of going to the park they would set up the wii instead. "Were they ok with that?" I asked as I remembered Aaron in particular was keen to go back to Sefton Park to explore the newly renovated area. "They weren't too bothered and didn't really want to go when it was just the two of them. I think they were more than happy as I said they could help

themselves to refreshments and set the Wii up.” “Did anyone else turn up after the start time?” I earnestly enquired. “Dave and Trina wondered in about half an hour later, apparently they both didn’t know the session was on.” John replied nonchalantly. Disappointed I say goodbye and promise to be back next week.

I wish I hadn’t phoned for an update as I now feel totally depressed. I am disappointed that the session did not go ahead as planned. Although I was not present to make a full judgement, it sounds as though the option to opt out of the park visit was done very quickly. Also I am not sure how Dave and Trina can claim ignorance to the session as they have been run at the same time and days every week since the start.

24th August 2009: Yoga in Reynolds Park

Well both the instructor and the group are late today! The instructor is lost in the local area and John has just sent me a text to say they were on their way (4 minutes after they should have been here). Thankfully the instructor and group should arrive at the same time. But is nothing ever easy? The yoga session planned for today is one that the girls chose. We are back in Reynolds Park where there are some good secluded areas perfect for this type of activity. After a poor showing at the manhunt, and the fact we have a paid instructor today, I spent the morning calling around the group. Pippa had to babysit again, but both Paula and Trina said they would make it. Lee was the only other participant I managed to speak to directly, who confirmed he would be attending. I left messages for Aaron and Chris. I was unable to get hold of Ria, Dave and Sarah. Although having spoke to John he had seen the majority of them in the youth club the previous Friday, and reminded them all the session was on and not to be late!

I’m sat inside the park as I notice John and Ryan walk through the park gates. A few seconds later Chris and Lee followed, both surrounded by their usual cloud of cigarette smoke. While they were holding a cigarette in one hand, they held rolled up yoga mats in the other. I can’t help but smile. Although as no-one else walked around the corner the smile soon disappeared. I get up and walk towards John *“Is this it?”* I ask in dismay. *“I’m afraid so”* John for once looks very serious like a man who has just told a child to go sit on the naughty step! *“I’m not happy. I’ve seen them all this past week and all of them said they would be here. Trina and Paula were even in the youth club a few hours ago so god knows where they disappeared to. Lee tried to call round, but none of them were picking up their phones. I think Pippa is the only one with*

a genuine reason as she's babysitting again." I confirm that I had spoken to Pippa, and that I shared his annoyance at the group. Purely exasperated by the situation I joke, *"Blimey I think Ryan has been to more sessions!"* Ryan looks up and smiles at his dad.

This is one of the first times I have seen John get really annoyed at the lack of attendance from the group. In a way I wish this annoyance had come much earlier in the programme as he may have been able to influence the group more when he had contact with them at other times. I wonder how different the programme would have been if he had taken more of a stern approach and emphasised the expectations he expected from the group.

As we waited for the instructor to arrive, I asked Chris and Lee about their respective holidays. Chris had been to Spain and Lee over to Egypt. As the conversation continued the lads started to reel off all of the holidays they had been to over the past few years, bragging about the activities and all inclusive resorts they had visited. It transpires that they have both had at least 3 holidays abroad each year and not just to the usual beach destinations popular with British tourists, but further abroad to Egypt, Tunisia and even Cuba *"cos that's where you get the sun in the winter"* Lee remarked.

This is again one of those moments where I am amazed at the luxuries experienced by these youths who apparently live in some of the most deprived communities in England. For me it is another example of the consumer society and expectation that luxuries such as multiple holidays abroad are a norm for families within these neighbourhoods. It is also ironic that while they get to experience destination holidays, many of them have never even been to some of the local parks we have visited during the programme of activities.

The instructor cycled into the park about 10 minutes later full of apologies and ready to get going. Her name was Star and I hate to say it but she looked exactly as I had imagined with psychedelic flowing clothes and scraggly hair, with a few Rastafarian dreadlocks thrown in. But she had a beaming smile and her softly spoken voice put me at ease. We walked over to one of the clearings in the park and rolled out our mats. At this time Star asked

everyone to take their shoes and socks off. While Ryan, John and I proceed without complaint, Chris and Lee start to pull faces and protest. *"I don't want my feet out in the park, I feel a div!"* Lee protested. *"Don't be daft, it's all part of the session so come on. Look if Ryan can do it I'm sure you lads can set an example"* John sternly responds. The boys continued to mummer, but did as they were asked. We all then sat on our mats and crossed our legs adopting the 'Buddha' position. I could hear the boys sniggering quietly. If they were thinking the same as me, I felt a bit daft too! But the joy of Reynolds Park is it is secluded and with Stars direction we started a series of breathing exercises. Soon enough the sniggering turned into deep breathing and concentration. As we started to move our bodies into increasingly difficult poses and stretches, everyone was fully engaged. Other than the odd comment surrounding an inability to hold a position or fully be able to do one (myself included) the session commenced very smoothly.

As we completed the last position, Star asks us to sit back into the 'Buddha' position. In her softly spoken voice she says *"Now to finish we are just going to do some spiritual chants."* I sat bolt up and looked in the direction of the lads, who now had looks of shock *"What?"* Lee responds in a parent like manner. *"It will help your inner self and finish continue the relaxation"* star responds with a soft smile and closes her eyes. She starts with an *"eeeeeeeeeeeeeeee"* sound. *"Ok now, all together"*. We close our eyes and amazingly all in unison we all start to chant *"eeeeeeeeeeeeeeee"*. Although I admit that even I am now trying desperately to hold back the laughs. Star continues and we follow her lead *"oooooooooooooooooooo"* pause *"aaaaaaaaaaa"* I open one eye and I see Chris and Lee looking nervously at each other and then at Star as though she were a crazed women. With her eyes still closed she announces *"ok, this is the last chant so really put everything into it and concentrate on lifting your voice."* The lads snigger but do as they are asked. *"iiiiiiiiiiiiiiiiiiii"*. Star then slowly opens her eyes and looks up and says *"Thank you"* and starts to clap. We all join in and thank her back.

Despite some minor protests and disruption at the start, this session has gone much smoother than I thought it might when Star first entered the park. I wasn't sure how much the lads would engage with some of the instructions we were given – in particular the chanting at the end, which even I found uncomfortable. I feel bad as I didn't think they would engage in the session at all, but they have well and truly proved my wrong!

While John speaks to Star and Ryan busies himself rolling up all of the mats with precision, I take the opportunity to speak to Lee and Chris. *"Did you enjoy that?"* I cautiously ask.

"Yeah it was good" Chris responds in a slightly higher pitched voice. "I really liked it!" Lee responds with a beaming smile. I don't think they are being sarcastic so I ask "Really? What did you like about it?" Lee looks pensively towards the sky then back towards me, "I just feel so relaxed. I forgot about everything and I didn't even want a ciggie the whole way through that." A look of shock may have spread across my face as I ask "So what do you normally do to forget and relax?" "I storm out the house and go for a ciggie. But I think I liked this more!" I smile and ask "so if this was put on again is it something you would do? Even if the rest of the group was about?" Lee looks back with an excited look "yeah defo." Chris looks slightly more cautious but agrees. Picking up on the 'ciggie' comment I can't help but ask "So you would now usually have a cigarette, do you not want one?" Lee pulls a face, "No. I actually don't want one, which is the first time in ages." Chris doesn't look so sure but again nods his head in agreement. "And you haven't looked at your phone for nearly an hour now, were you not wanting to know if someone had text or phoned?" Again Lee just smiles back at me, "nope, while I was doing that I couldn't care less. I felt so relaxed." Chris then states "Well I don't use mine as much anyway, so it didn't bother me."

Denise: Ok so looking at the sessions that we did do what was your favourite out of the lot?

Lee: Probably the yoga

Denise: Really? What did you like so much about that?

Lee: Nothin, it's just the fact that it calmed me down and me stress levels just went and I didn't... and then it has helped me to cut down on me smoking a bit more as well.

Denise: How do you think it has done that?

Lee: Just by, it just kept me calm and then made me realise that I don't need to smoke. I don't need to smoke to keep my stress level down. I can just take my mind off by doing something else.

Denise: So what was it about that activity, was it the time you had to think about things?

Lee: Yeah it was just, I don't know what it was but you had time to think. It was just peace.

So Star doesn't get lost again, John offers to load her bike into the minibus and drive her to her next class. I can't describe it, but as a group we are all totally relaxed. Star is pleased at the session and inspired to hold more classes outdoors where possible. John has a beaming smile and the lads also seem at ease. Ryan is his usual playful self, but just going along with

everything without complaint. With a genuine smile I wave goodbye. Despite the lack of participants the session felt worthwhile.

Reflective stop off 4

Parental influences on participation

To date a number of the youths have been unable to attend or continue with the programme because of parental influences. As already highlighted, Steve was no longer able to attend on the ruling of his father as a result of suspected criminality from Dave. Sarah was also grounded (forbidden from all social activities) to participate in a number of sessions by her parents as a punishment for getting drunk. Finally on a number of occasions Pippa and to a lesser extent Ria were required/expected to babysit younger siblings by request of parents or guardians. All of these reasons provided barriers to participation in the programme. While Sarah's binge drinking and subsequent grounding was in part as a result of her own behaviour choices, it appears the other participants had no control over their absence.

Although Steve's reason for subsequently dropping out of the programme may be viewed as unique, Pippa and Ria's requirement to babysit younger siblings is not. Teenage girls are more likely than boys to be expected to care for younger siblings (Dodson & Dickert, 2004). While it has been argued that caring for younger siblings can increase maturity and self-esteem (Chase-Lansdale et al. 2003; Hsueh & Gennetian, 2011), such responsibilities can impede on their own development through the time lost for other school pursuits or activities (Dodson & Dickert, 2004). More specifically, teenagers from lower socio-economic groups who care for younger siblings are less likely to participate in out of school activity programmes (Gennetian et al., 2002). Sibling care has been a noticeable factor for participation across this programme and without further investigation it is difficult to speculate whether childcare arrangements could have been changed to accommodate participation in the programme.

Dealing with defiant behaviour

Over the past few weeks I have grown increasingly negative about working with many of the participants. In particular I was amazed at how upset I've been re-writing the Jungle Parc activity session and am really starting to appreciate the difficulties of working with teenagers in the modern era. I don't know how well I handled the backlash from Trina and some of the other participants when Paula was prevented from attending the session, but I

do believe it would have been easier had John been more involved in the activity and more willing to tackle defiant behaviour. On this occasion the lack of support, and even avoidance, to properly deal with the situation enabled the backlash towards me to continue across the session. Instead for the majority of the session John was on a different course supervising his son, Ryan! Although Ryan's presence has on occasion kept participants motivated through his enthusiasm to participate, it has also impacted John's ability to fully supervise and support the session. Ryan's attendance was never discussed during the planning phases or before any of the sessions. While he is a lovely lad and does get involved without complaint (unlike some of the study participants) his presence has impacted on the programme.

When young people witness peers and role models behaving in a certain way in social situations, they are more likely to learn such behaviours (Bandura, 1973, 1977). As indicated in the previous reflective stop off antisocial behaviour is not dealt with, it can become the norm within their social circles (Hine, 1999). Socially established and shared beliefs regarding what is normal can influence the thoughts and actions of group members (Baron & Kerr, 2003). Across the programme the behaviour of some individuals has had a negative impact on other group members and often hindered the delivery of activities (Larson et al., 2009). As poor or defiant behaviour was rarely dealt with by John (or me) it may have helped set the precedence for behaviour across the course of the programme. Research has shown how peer behaviour can influence risky and antisocial actions (Ennett, & Bauman, 1994; Jaccard, 2005), with teenage years an integral time for increased influence (Steinberg & Monahan, 2006). While programmes like the active parks programme can help deter youths from peer pressure and anti-social behaviour (Eccles & Gootman, 2002), practitioners need to present themselves as good role models to help address poor behaviour (Masten & Coatsworth, 1998; Hall et al., 2004). As indicated in preceding reflections, John has failed to do this on a number of occasions, which may have helped to reinforce poor and antisocial behaviour. Programmes need to develop a strong policy on behaviour set a precedence of what is acceptable for participation and to support general youth development (Hall et al., 2004; Larson, 2011)

The participant group size and dynamics

This programme has at times felt like bipolar episodes – up one minute and down the next but without warning and no logical reasoning! I was relieved the final two sessions (manhunt and yoga) were smaller groups of less than five participants and incorporated

external instructors as it allowed the participants fully engaged themselves in the activities without too much complaint. It has been suggested that the size of a group can determine how its members behave and relate to one another (Forsyth, 2009). A small group with a higher ratio of participants to instructors allows easier interaction and closer relationships. Participants and practitioners alike are more likely to develop primary relationships in smaller group settings. While the group may have already been considered to be small, the reduced numbers in the final weeks meant a higher ratio of practitioners to participants, which enabled more interaction and focus in the activities (Forsyth, 2009). Smaller group sizes could be one consideration for future activity programmes to help develop more focus and individual support from practitioners, which in turn may help develop more personal self-agency (Larson, 2011).

6.3.9 Researcher reflections post project

In summary my time spent with the teenagers highlighted the following issues:

- There were glimmers of appreciation towards parks and natural settings and the feeling of 'being away' from the usual routine.
- When participants did fully engage in activities they tended to enjoy themselves, although social and cultural barriers often prevented this (i.e. as a result of peer pressure).
- The teenagers were at times recalcitrant, with moods swings and mixed motivation that sometimes made it difficult to engage individuals across the duration of the programme.
- Participants often expressed little or no respect for adults in position of authority (e.g. teachers and police), although some respect was displayed with adults who had won their trust and showed congruence between who they were, what they said and what they did. This was evident with Carol at the start of the programme who appeared to have gained participants trust and respect, while also managing defiant behaviour.
- Some participants had real difficulty in functioning within formal settings and organised activities, which would then affect how the rest of the group behaved.

- Standard engagement methods were generally ineffective, alternative and creative methods were required to deal with limited attention and disruptive behaviour.
- From the researchers perspective, working with the group even for a very short time period was extremely draining, physically, psychologically and emotionally.
- There was a paradox between fierce individualism and pack instinct
- They were extremely materialistic, especially with fashion and technological goods.
- Practitioners are extremely influential on the success of a programme. This includes the ability to communicate, organise, empathise, discipline and fully engage in the task at hand. Many of these skills were lacking with the predominant practitioner, which appeared to hamper group engagement with the programme.

6.4. Phase three summary

The main objective of the intervention phase was to deliver a park based activity programme to a group of teenagers that didn't regularly participate in physical activity and tended to use parks for anti-social purposes. Incorporating ethnographic principles, the intervention phase explored the culture and individual beliefs of teenagers during a park activities programme, whilst also investigating the effectiveness of the active parks programme and any intentions to change health behaviours and use of park environments. This entailed capturing some of the actual experiences of teenagers that occurred during the intervention, as well as those occurring in other domains of their life that can influence programme participation and the use of parks. Creative writing was adopted to story the researcher's experiences and divulge emerging themes that influenced the aims and objective of the intervention phase.

In addition to the researcher reflection post project, the following predominant emergent study themes are taken into consideration when summarising the intervention phase:

- Programme planning and organisation
- The practitioners' role and skill base
- Participant motivation and the influence of technology
- Participant physical activity and park use.
- Teenager norms and modern culture in a park context

6.4.1. Programme planning and organisation

Once the activity programme had commenced, it became clear that fundamental oversights had been made during the planning and organisation phases. Firstly, participant involvement in the planning process emerged as one aspect that could have been improved to increase personal affinity with the programme itself (Walker et al., 2005). Although participants were intentionally involved in choosing the activities to encourage personal affinity with the programme (Walker et al., 2005; Dawes & Larson, 2011), on reflection they could have been more involved with the organisation of the activities (i.e., organising activities, managing budgets, carrying out risk assessments). The teenagers seem to be offered so many opportunities that it feels as though they never really appreciate everything that goes into the provision, therefore the additional tasks may have incited more personal ownership of the programme and helped to increase attendance rates (Brustad et al., 2001).

Secondly, organisational planning should have been dealt with by the youth centre. Changes to staffing (i.e., Carol leaving) meant the researcher took over the majority of session organisation and chasing participants for attendance as John was hesitant to fully manage these tasks. Although the researcher and practitioner roles were informally agreed during initial meetings, the change in planning responsibilities impacted on the researcher's role among the group. Staff roles and responsibilities needed to be formally established at the start of the programme implementation to ensure they are understood and followed across the intervention, with any additional training requirements addressed at this time (Green & Jones, 2010).

An issue which arose during the early stages of the activity sessions was the impact of new teenagers joining after the programme had begun. The late arrival of Dave and Chris, with the very late addition of Phil appeared to have had a considerable impact upon the group. Besides the allegations of criminality and interpersonal attractions, the dynamics of the group were disrupted by the new participants who were also already physically active and much more socially confident than other group members. Changing group dynamics once a programme has started can impact negatively on outcomes (Forsyth, 2009). If late starters are to be introduced, clear guidelines should be adhered to, which clarify the programmes ethos and enforce the purposeful selection criteria to ensure participants are involved for similar reasons (Green & Jones, 2010).

6.4.2. The practitioners' role and skill base

Activity based programmes are proposed to benefit teenagers and the wider society by reducing the incidence of problem and antisocial behaviour, developing interpersonal skills and increasing awareness of healthy behaviours (Eccles & Gootman, 2002; Durlak & Weissberg, 2007; Little et al., 2008). Providing social and emotional support, along with the opportunities to develop new skills, is a good way of reducing antisocial behaviour and therefore detrimental impacts among youths from disadvantaged communities (Eccles & Gootman, 2002; Tekin, 2010).

During the social intervention the role of the practitioner was to engage participants in the programme and help develop the aforementioned benefits (Green & Jones, 2010). While the issues surrounding youth engagement in activity programmes are complex and multifaceted, in this instance the practitioner could have encouraged greater participation

and personal development among participants. In particular poor behaviour wasn't addressed on several occasions, with little consequence for bad attendance rates across the programme. To address poor behaviour the presence, role and expectations of the practitioner should be discussed at an early stage of the programme planning rather than relying on inclination and experience. At the same behaviour expectations of participants should be outlined, with antisocial or poor behaviour consistently addressed throughout activities (Eccles & Gootman, 2002; Delgado & Staples, 2008). Additional skills training would also have been beneficial (Green & Jones, 2010), particularly on how to manage structured activity programmes outside of the youth centre setting.

6.4.3. Participant motivation and the influence of technology

It has previously been suggested that teenagers are more likely to engage in something that they want to do (Hansen & Larson, 2007). To try and achieve participant engagement in the programme and incite motivation to attend, the group were encouraged to choose the activity sessions. However, attendance rates across the whole programme suggest either a lack of motivation or interest among many participants from the outset (Brustad et al., 2001; Eccles & Gootman, 2002).

While full attendance at all of the sessions was optimum, there were both authorised and unauthorised absences across the programme. One suggestion is that the teenagers had other activities that were more interesting than what was on offer on particular sessions. Even at the youth centre the teenagers are bombarded with activities, free sessions and opportunities, which conflicted with the programme. The expectation of multiple opportunities could impact the ability for youths to fully commit to one programme. This is in part recognisable of the materialistic society that heavily influences teenagers being and the expectation that varied choices and opportunities should be freely available to them (Fromm, 1978; 1993; Buijzen & Valkenburg, 2003). If happiness and motivation is connected to what we get, and the expectations of what individuals think should have continues to rise, then it will be difficult to motivate the teenagers if they do not see its material worth (Fromm, 1993). As the active parks programme generally offered activities which they already had easy access to, then the programme may have suffered from other opportunities that presented more exciting prospects.

When participants were present, one of the main distractions effecting motivation and participation in the activity was the use of mobile phones and music equipment (i.e. ipods). Teenagers in the modern era are fully immersed in modern mobile technologies (Oksman & Turiainen, 2004). While it can be understood that teenagers are shaped by the era in which they live (Elder, 1994), the constant need to be 'connected' with electronic and mobile devices created a distraction that on occasion impacted on the ability of participants to fully engage in activities. Overall, the programme failed to fully address both absences and the use of phones and electronic equipment during sessions, which in turn had an effect on motivation. For future programmes it may be necessary to have a clear policy on attendance to help maintain group cohesion for the regular attendees and the use of electronic and mobile devices during activities to reaffirm the commitment expected from the participants (Green & Jones, 2010).

6.4.4. Participant physical activity and park use: modern culture and norms

Reduced use of parks for leisure purposes has largely been attributed to the increased use of home entertainment and other leisure interests (Valentine & McKendrick, 1997; Travlou, 2006), with the same reasoning ascribed to a reduction in physical activity among children and adolescents (Vandewater et al., 2004). Teenagers are reported to have increasingly sedentary lifestyles (Sproston & Primatesta, 2003), with the need for programmes to help increase physical activity levels. While the programme did not have a major impact on addressing physical activity levels or positive use of park environments, the qualitative approach allowed insight into perceptions and actual participation. The benefits participants associated with physical activity were largely related to body shape and weight management, derived from popular culture (Cockburn & Clarke, 2002; Porter, 2002; Allander et al., 2006). As physical activity participation during childhood and teenage years can affect participation as an adult (Telama, 2009; Huotori et al., 2011), it is important to develop a sense of self agency regarding health issues to encourage participation (Larson, 2011). The root cause of health inequalities will not be addressed by interventions like the programme, without addressing the underlying culture of these neighbourhoods and other influencing factors (Hancock, 1993).

Physical activity in natural environments is proposed to have bio-psychosocial benefits for children and teenagers (Maller et al., 2002; Louv, 2005; Ward Thompson et al., 2006).

However, a disconnection from nature over the last few decades has had a detrimental effect on the development and opportunities for these benefits and the way people use these environments (Bingly & Milligan, 2004; Louv, 2005). Teenagers from the programme largely viewed parks as places to escape adult supervision and participate in antisocial behaviours, which replicated findings from previous studies (Ward Thompson et al., 2006). While there was consensus that parks were important for local communities, they often viewed them as spaces where illegal and antisocial behaviour was acceptable (Coleman & Carter, 2005). Increasing use of parks for such activities affirms perceptions from other social groups and enforces current culture towards such antisocial behaviour (Cahill, 1990). While this is already reported as having a detrimental effect on park use from other social groups (Cahill, 1990; Ward Thompson et al., 2006), it may also impact negatively on how teenagers interact with these spaces in the future because of how they interact with them now (Louv, 2005). Although policing may reduce the incidence of antisocial behaviour, there is also a need to address the cultural norms that leads to the expectation and perception of such behaviour in park environment.

However, while teenagers are easily singled out as perpetrators of bad behaviour within a park setting, it has been suggested that they cannot fully be blamed for their actions. It has been argued that teenagers are a social construct developed by social, political and economic reasoning (Buckingham, 2000; Savage, 2007), proposing that teenagers' activities and logic can be understood as a rational response to the structural conditions in which they are embedded (Hine, 1999). The social positioning of teenagers today is constructed by the combination of historical views, which configures them as both vulnerable and dangerous within society (Buckingham, 2000). Adults reinforce these beliefs through fear, segregation, control and a general lack of understanding of the modern youth (Valentine, 2004; Horne et al., 2005). This segregation is visible as many teenagers' social groups, which consist almost exclusively of their peers. While some teenagers accept the limitations afforded by their age and status, others desperately crave the perceived privileges afforded to adults, which can lead to what is deemed as anti-social behaviour and deviance (Mcnamara, 2008). This has led sociologists to argue that antisocial behaviours and "deviance" are logical responses to the social conditions in which teenagers exist (Hebdige 1979; Gelder and Thornton 1997; Larson, 2011).

During the intervention study the Knotty Ash teenagers consistently reported that they prefer to socialize in physical spaces without constant parental oversight. Parks provide spaces to be away from adult supervision and push the social boundaries afforded to teenagers (Ward Thompson et al., 2004). This increasing societal trend may have a negative impact on individual perceptions of parks and urban green spaces into adulthood because of the lack of affiliation or appreciation of the natural landscape and biodiversity (Louv, 2005). It is therefore perhaps even more important for adults, and society, to engage with these issues and help guide teenagers in making healthy decisions that allow them to use parks in positive ways. A systems approach that looks to address antisocial behaviour in parks (and other social instances) needs to be adopted across a number of agencies to have any impact on this and future generations (Tekin, 2010; Larson, 2011).

6.5. Phase three overview

Findings from the intervention phase suggest that while physical activity in parks and contact with nature may be important for teenage groups, cultural beliefs and social norms have a significant impact on how they interact with these spaces. Parks are currently viewed by this group as places to escape adult supervision and spend time with peers, although this can then lead to antisocial or illegal activities. The main findings from the current phase include:

1. The required Parks Programme monitoring form did not provide any evidence as to the real impact of the project on behaviour change, whereas the ethnographic principles adopted in the research provided an insight into the complex culture of teenagers and the difficulties engaging them in an active parks programme.
2. The activity programme failed to fully engage all participants in the planning phase and activity sessions. Researcher observations and reported incidents indicate that the programme had little impact on levels of physical activity and antisocial behaviour in local park settings (in particular alcohol abuse).
3. Due to the nature of the programme, motivation from the practitioner involved and increasing public service austerity cuts, sustainability beyond the programme funding is unlikely. However the ethnographic methods adopted in the research provided insight into the deep rooted social and cultural beliefs of this group and perhaps why they do not engage in physical activity in natural environments.
4. Although the intervention did not engage participants to the desired levels with behaviour change effects, this does not mean that the intervention would not work within other populations.
5. Causal relationships, (i.e. between health and the environment) are difficult to achieve when people, places and social constructs are so different. This creates many conceptual problems, especially toward producing public policy decisions aimed at behaviour change for the whole population.

While the original focus of this thesis was on the bio-psychosocial benefits of physical activity in a natural environment, this study has shown that cultural norms and social

influences play a major factor in the integration of these spaces. More investigation into the views and use of natural environments like parks by children and teenagers in the UK should be undertaken to gain an understanding of their needs and how these can be integrated and/or managed with the needs of other social groups. The findings from this phase will be considered further in the next chapter in relation to the previous two phases of the thesis.

Chapter Seven:

Discussion

“Here, the neighbourhood as an entity is of less interest than its impact on the people who live in it.”

(Lupton, 2003 p.2)

7.1. Discussion

The salient themes of this thesis will be discussed in this chapter in relation to the theoretical stances pertinent to each phase of research. The discussion starts by summarising the findings of each phase of research (i.e. reconnaissance phase, exploratory study and the social intervention) in relation to the relevant research aims. These findings are then discussed with reference to the theoretical stances outlined in the introduction and existing research. The strengths and limitations of the research are then considered along with the impact of the research pathway. Findings are synthesized to inform the conclusions and personal reflections detailed in chapter 7.

7.2. Aim 1: Assess the extent to which the urban environment influences physical activity participation and access to parks and urban green spaces among Liverpool residents.

The first aim was investigated in the reconnaissance and social intervention phases. Within the reconnaissance phase, secondary analysis of the Liverpool Neighbourhood Satisfaction Survey (LNSS) showed that while Liverpool has an abundance of parks and urban green spaces, the high rate of health inequalities and lack of physical activity suggested residents did not access parks and urban green spaces for this purpose. Meanwhile, findings from the social intervention suggested that while parks were easily accessible to teenage groups for physical activity pursuits, cultural norms meant that the space tend to be used for escapism from adult supervision and antisocial behaviour. The low physical activity levels among the group were attributed predominantly with social pressures as opposed to lack of access to parks and open green spaces.

7.3. Aim 2: Ascertain whether bio-psychosocial responses are improved within an urban park compared to an urban city environment.

The second aim was investigated predominantly in the exploratory study, with consideration in the social intervention. Findings from Phase A of the exploratory study showed that in comparison to the city scene, MAP and systolic BP significantly reduced after walking to the park scene. While the city was associated with traffic, congestion and noise that could evoke negative emotions, the history and diversity of Liverpool was associated with pride and enjoyment that could also promote psychosocial benefits. The exploratory study findings suggested a 'green' effect as a result of visual and sound stimuli.

During the social intervention, teenage participants reported some psychosocial benefits from accessing parks and urban green spaces, with observations capturing some instances of psychosocial benefits whilst participating in structured activities within a park setting.

7.4. Aim 3: Develop an understanding of an individual's psychological and social experience of accessing urban parks and green spaces.

The third aim was investigated in both the exploratory study and within the social intervention. The exploratory study interview analysis showed that within a park environment participant's experienced psychological benefits of stress reduction and attention restoration, and social benefits including providing a place for family and friend interactions. The participants associated their current affiliation to nature as a result of positive experiences during childhood. More recent social experiences of all participants were largely positive, although social issues such as antisocial behaviour among teenage groups and destruction and/or a lack of upkeep negatively influenced their experiences in park environments.

Teenage anti-social behaviour in park settings was confirmed by participants involved with the social intervention, where they cited personal engagement or spectatorship of the destruction of public property and activities including drinking and smoking in large groups. Such behaviour was viewed by participants as a social norm among their peer group, with any intervention by others (i.e. the police) met with hostility. During the social intervention activities one of the main influences on participant psychosocial experiences was the actions of the practitioners. The main practitioner failed to set explicit boundaries and/or enforce and reinforce expected behaviour. Whilst such a laid back approach was typically adopted due to fears that these teenagers would not respond to authority, it appeared that this also contributed to a culture of apathy towards the project. Indeed such a philosophy and/or approach influenced absences, disruption and pivotal participant changes across the programme.

Overall the social intervention findings showed that social and cultural norms and experiences external to the activity programme impacted on participant experiences and related psychological and social outcomes. Although the park based physical activity programme did not present extensive bio-psychosocial benefits, the research highlighted a

number of organisational, cultural and social issues that need to be tackled before benefits can be fully realised.

7.5. Impact of the research

Whilst a summary of each research phase has been offered at the end of each chapter, the following section attempts to delineate the synergy between and within the phases with a view to articulating the key findings and principles in relation to relevant theories and existing research. Theoretical implications and practical applications of the findings are discussed in relation to research findings.

7.5.1. Biophilia, Stress Reduction Theory and Attention Restoration Theory

The exploratory study reinforced the benefits associated with ART (Kaplan & Kaplan, 1989) and SRT (Ulrich, 1983), that parks and urban green spaces are perceived as mentally restorative environments (Frumpkin, 2003; Wendel-Vos et al., 2004; Pretty et al., 2005; Maas et al., 2009). Findings advocate the claim that parks and urban green spaces encourage physical activity participation (Bodin & Hartig, 2003; Pretty et al., 2005). Consistent with previous research, participants from the exploratory study suggested that the incorporation of nature into urban cities provides neighbourhoods with a range of physical, social, and mental health benefits (Frumpkin, 2003; CABE, 2006; Maller et al., 2009). Positive experiences were associated with the opportunity to be away from everyday stressors, fascination of flora and fauna and a place for leisure and social opportunities, which are consistent with ART (Kaplan, 1995).

Participants from the exploratory study further expressed how access to parks and urban green spaces, particularly during childhood, was important in building a personal affiliation with nature and natural environments. They believed that reduced access as a result of safety concerns and alternative leisure opportunities will affect children in future generations' ability to identify natural environments as important places for restoration. This finding supports other researchers who argue that dissociation with nature will have a negative impact on bio-psychosocial wellbeing and decreased affiliation which could lead to

less importance placed on protecting natural environments in the future (Kellert & Wilson, 1993; Ward Thompson et al., 2004; Louv, 2005).

While interactions with the teenagers during the social intervention found instances of fascination for nature (e.g. when Aaron stopped to admire the rippling stream during the Sefton park bike ride and during the manhunt session when participants were shown pictures of animals and insects), overall their view of neighbourhood parks and urban green spaces was associated with being in a place among peers and away from adult supervision. Although the Biophilia hypothesis would suggest that being near to or in the presence of nature is still beneficial to these individuals, the way some of the teenagers treat these environments would suggest the connection for these environments are not as strong as they could be. Since the 1980's the Biophilia hypothesis, SRT and ART have been the dominant theories presented to support individual benefits of natural environments. However recent debate (e.g., Hartig et al., 2010; Joye & van den Berg, 2011) has begun to question the transferability of the evolutionary grounding of the Biophilia hypothesis and associated theories across all population groups. It has been suggested that the restorative benefits of nature are not devoid of cultural and social factors. Instead positive health effects appear dependent on the way people react to nature on both a behavioural and experiential level where,

“...people are continuously engaged in perceiving, evaluating and assigning meaning to the events and conditions in the world around them. Their perceptions and evaluations, the meanings they assign, and their actions can all be seen as contributors to processes through which the environment becomes linked with health.” (Hartig et al., 2011, p. 129).

Although the evolutionary theories remain relevant, it is clear that restorative effects of nature are not devoid of individual, local and cultural contexts (Joye & van den Berg, 2011). For example, participants from the exploratory study described instances where simply being in the presence of nature could aid mental restoration (thus supporting ART and SRT). However, teenagers involved in the social intervention did not allude to similar benefits, with their actions regarding the destruction and use of natural environments for antisocial behaviour would suggest the opposite. The findings suggests that while enhancing parks and urban green spaces would benefit the bio-psychosocial health of participants involved in the exploratory phase, the potential destruction and misuse by

some of the teenage population would mean the enhanced spaces could eventually deteriorate back. This cycle implies that there are different challenges associated with diverse population groups that should be taken into consideration when designing interventions that aim to gain maximise potential bio-psychosocial benefits. Particularly among children and teenagers where it appears important to create positive experiences of interacting with natural environments to help build the personal affiliation that may contribute to benefits found in adulthood (Louv, 2005).

7.5.2. The use of parks for physical activity

The reconnaissance phase helped to highlight the abundance of parks and open green spaces in Liverpool, with the majority of respondents from the LNSS living within a ten minute walk of a local park. While the presence of parks and urban green spaces have been associated with an increase in physical activity (Gile-Corti et al., 2005b; Kaczynski & Henderson, 2007; Lee & Maheswaren, 2010), participation rates of less than thirty per cent across Liverpool suggest these spaces are not being utilised to their full potential. Although participants involved in the exploratory study reported numerous benefits related to parks and urban green spaces, they also noted a reduction in use for leisure purposes, particularly among children and families. Perceptions of personal safety in an urban context and the increase in home based leisure activities have been two factors attributed to reduced use of parks and urban green spaces for physical activity purposes (Valentine & McKendrick, 1997; Louv, 2005; Travlou, 2006). One suggestion for addressing this issue is to encourage interaction and education of nature within schools, the family and social organisations to highlight the importance of natural environments for bio-psychosocial health (Louv, 2005; Lopez & Hynes, 2006).

7.5.3. Health and social culture

It has been suggested that in order to achieve long term adherence to a positive behavioural change, people need to be in a place where healthy behaviour is the norm (Forsyth, 2000). There is now considerable research to support the influence of well-structured physical and social environments on individual capacity and healthy behaviour (Eccles et al., 1996; Forsyth, 2000). In the reconnaissance phase it was highlighted how Liverpool had significant health and social inequalities within England, with below average physical activity levels among the population, implying an unhealthy environment. The

Marmot review (2010) argued that social determinants like income, employment, education and socialisation impacts many of the health inequalities experienced within locations like Liverpool. These determinants have also been associated with deprivation that can impact the perceived safety, quality and use of neighbourhoods, including parks and urban green spaces (Giles-Corti et al., 2005b Kaczynski & Henderson, 2007; CAGE 2010; Lee & Maheswaren, 2010). Publications like the Marmot Review (2010) and Foresight report (Government Office for Science, 2007) highlight the complexity of addressing health inequalities and promoting bio-psychosocial health and wellbeing.

As outlined in the literature review, ecological models have been advocated as one approach to help address health and social inequalities and improve individual wellbeing across the population (Sallis et al., 1998). While ecological models like the Mandala of Health (Hancock & Perkins, 1985) depict the complex interaction between the multitude of individual, cultural and social, physical, and political determinants, conceptual development in a real life setting still needs more investigation and research investment (Wilkinson & Marmot, 2003; Government Office for Science, 2007; Marmot, 2010). This was evident during the social intervention phase where elements such as babysitting other siblings while parents worked became a barrier to activity participation.

Among policy makers, practitioners and researchers there is a need to concurrently view neighbourhoods as both social and physical places, as failure to do this can lead to misconception when looking to implement health interventions (Lupton, 2003). The qualitative methodologies applied within the exploratory and intervention phases took into consideration both physical and social circumstances to develop an understanding as to how individuals interact with parks the wider urban environment. One of the findings from the exploratory study suggested that even among participants who had a good awareness of the bio-psychosocial benefits of physical activity in natural environments, other social factors affected access. The social intervention highlighted some of the complexities surrounding social cultures and ideologies of physical activity and park. The intervention was difficult to implement without further understanding of teenage subculture and the local context (St Leger, 2003).

The teenagers' use of local Liverpool parks illustrated how social culture can affect the use of a public space. It emerged from the exploratory phase that participants perceived teenagers within a park context as threatening to other users. The teenagers from the intervention phase confirmed some of these stereotypes through admittance to antisocial and illegal behaviour in local parks. The teenagers disclosed that parks were predominantly used to meet with peers away from adult supervision, and participate in behaviours that might be considered antisocial to other social groups. Previous studies have found similar findings of both perceived fear from teenage groups (Cahill, 1990) and actual participation in antisocial behaviour (Ward-Thompson et al., 2006). Teenagers are now rightly or wrongly viewed as mischievous, deviant and threatening within parks and urban green spaces (Eccles et al., 1996; Bell et al., 2003; Ward-Thompson et al., 2006; Tekin, 2010). Adults help to reinforce these beliefs through fear, segregation, control and a general lack of understanding of the modern youth (Eccles et al., 1996; Valentine, 2004; Horne et al., 2005). Moreover, such perceptions have led sociologists to argue that the social conditions in which teenagers now exist contribute to the development and re-inforcement of antisocial behaviour (Hebdige 1979; Gelder and Thornton 1997; Larson, 2011). Having spent time with teenagers during the social intervention, it is clear that tackling the social norms, culture and beliefs of teenagers to discourage deviant behaviour within park environments is something that will not simply be solved through an intervention. While implementing park based initiatives may have some impact on the local population, there is a need to concurrently address *all* social inequalities (e.g., income, education and employment) and breakdown social barriers to even stand a chance of improving bio-psychosocial wellbeing for all (Marmot, 2010).

7.5.4. Technology and materialism in the modern era

The increased use of technology in many aspects of our lives has led to reductions in physical activity and increased sedentary leisure opportunities (Biddle, 2000; Philipson, 2001; Finkelstein, et al., 2005; Cutts et al., 2009). With rising levels of stress and anxiety often attributed to technology use among the current adult population, it would be pertinent to assume that mental and physical health will be impacted further in future generations with increased use and reliance on technology (Dittmar, 2007). Particularly during the social intervention it was emphasized how technology and material goods appeared to inflect practices concerning identity, peer socialization, and relationships with the wider society. Therefore it seems important to consider how the changing technological

and consumerist landscape impedes experiences of the natural environment and participation in physical activity. The vast choice and materialist goods now available to teenagers has led to suggestions that the 'natural world' is viewed as less stimulating for activities (Frank, et al., 2004; Louv, 2005).

The social intervention findings highlighted how communicative technology and consumerism appears to affect teenagers today more than that of previous generations (Elder, 1994; Oksman & Turiainen, 2004). The teenagers from the social intervention provided valuable insight and understanding of how cultures and norms are transformed by structural forces like technology and consumerism.

Teenagers in the modern era have become the target of marketing companies that has led to a consumer driven youth culture, which often relies on segregation from the adult world (Boyd, 2008; Tapp & Bird, 2008). Increasing segregation and identity from adults has increasingly reinforced the term "teenager" as a label for a unique marketable youth demographic (Hine 1999). Teenagers are now a separate consumer demographic to adults and younger children, which has enforced the consumer driven youth culture that is increasing with communicative technology and freedom (Hine, 1999; Boyd. 2008; Tapp & Bird, 2008). While identity is profoundly about placing oneself within a cultural context, teenagers seek to understand who they are and are partly driven by consumerism to construct their identity and 'market' themselves accordingly (Fournier & Richins, 1991; Dittmar, 1992; Schor, 1998; Oksman & Turiainen, 2004). Among the teenagers it was clear the consistent link to communicative and media technology impacts on their ability to fully immerse themselves in the task at hand. During the social intervention an understanding of the use of mobile phones and media by teenagers may have helped develop rules to aid concentration levels and improve social etiquette.

7.5.5. Social policy and research

Although there is awareness among policy makers, researchers and practitioners of the prevalence and main causes of health inequalities, this doesn't tell us how to fully address them (Macintyre, 2003). Despite investment in producing 'evidence based policy' there is still a lack of information as to how to address health inequalities within a social setting

(Government Office for Science, 2007), with studies often failing to take note of socio-economic differences (Macintyre, 2003). Undertaking the social intervention highlighted how difficult it is to make an impact on health inequalities without first having a good understanding of the target population. For instance, the teenagers have many cultural and social norms that needed to be understood and addressed within the context of the programme (e.g., the aforementioned need to set explicit boundaries and/or enforce and reinforce expected behaviour during activity sessions). The ethnographic approach enabled the researcher to take account of factors that influenced individual participation that would not have been recorded in more traditional demographic reporting. Realistic evaluations within social settings are imperative if we are to fully understand how to address health inequalities and encourage activities that are beneficial to bio-psychosocial wellbeing (Pawson & Tilley, 1997). Future programmes should take into account realistic evaluations that can be appropriately planned with guidance from researchers in addition to demographic statistics.

Since the conclusion of this research the political outlook changed in 2010 with a Coalition government replacing the Labour regime. Within the current government administration there is a retrenchment with significant austerity measures, particularly with regards to preventative public health policies and intervention development. Nevertheless the evidence imperative is still indicative of the current Government's strategy for more high quality public health evaluation (e.g. Healthy Lives, Healthy People: Our strategy for public health in England, 2010). However, as the determinants of health and wellbeing are complex and multifaceted there is a need for governments to be realistic about the effects of interventions and projected targets (Backholer et al., 2010) and allow for research and evaluation that are not driven by such targets.

7.6. Strengths and limitations of the research

The research has a number of strength and limitations. The reconnaissance phase showed that while quantitative survey instruments can be easily accessible, assess an element of environment and physical activity domains, and are time and resource efficient, they impose categories that may not represent the fully explain participants' experiences. Instead the qualitative methods applied across the following two phases enabled an in-depth examination of a range of experiences and perspectives of the physical activity and

the urban environment, as encountered in the participants' real-life circumstances.

However these methods also have their limitations.

In the exploratory study participants who were not currently active in parks and open green spaces were not included as it was expected they would lack current engagement and would lack a depth of knowledge on personal use and benefits these spaces could offer (in accordance with the literature). Therefore the researcher is unable to comment on full transferability of findings to groups who do not access parks and open green spaces. Additionally as with any qualitative study, sampling to ensure full representativeness was not undertaken, instead a broad range of participant experiences were sought within the context of the interviews.

The social intervention data and researcher reflections could be criticised as speculation and lacking substantial evidence from a scientific perspective. However, in the instance of this study the narrative represents strong impressions as the researcher reflected on the events that unfolded. While it is anecdotal, the narrative is representative of what was heard and seen from the teenage participants and practitioners across the programme. Although overall generalization of study findings cannot be made to larger populations, specific findings of the study were generalizable, especially to teenage populations in settings similar to those of the participants. Mayring (2007) described this type of generalization as consisting of two components: first, identification of typical material from prior considerations; in the present case, the participants personal experiences can be identified in accounts from previous accounts from this population (Eccles & Gootman, 2002; Louv, 2005; Ward Thompson et al., 2006; Tekin, 2010). Second, although it was not possible to extract and to record the exact "essence" of the participants' lives, their salient experiences, insights, and feelings were documented and conveyed. From a constructivist perspective, all experiences are believed to be time and context specific of individual subjective incidents (Mayring, 2007). While there are parallels across people's experiences, each person is an individual and therefore will have experiences that are unique to them. Overall it is difficult to know the full effect of physical activity in parks and open green spaces effect on bio-psychosocial health within this research as a result of the cross sectional nature of the studies involved. Longitudinal studies may provide more evidence and detail around what works and why.

7.7. Reflection on philosophical positioning and the application of mixed methods

Although the quantitative/qualitative dichotomy and related paradigm positioning may appear obvious in the distinctions between the two approaches to research, the division may not be as definite as previously suggested (Creswell & Plano Clark, 2010).

Investigation into multi-paradigm research including paradigm integration and paradigm crossing provide examples of a move towards the convergence of paradigms (Willnott et al., 1993; Schultz & Hatch, 1996). While this is a debate that is beyond the scope of this thesis, it supports my emerging view that while philosophical positioning is clearly an important issue in knowledge generation, it is the assumptions we make about the world while conducting the research that should be examined more so. I concur with the philosophical positioning that paradigm convergence lends itself to the nature of research as a process that increases knowledge that only for a period of time produce problems and solutions to a community.

Physical activity and health research is an applied field that it is heavily oriented towards the application of interventions to encourage healthy behaviour choices in a population. It appears that this focal point has resulted in research having a greater focus on the outcomes and practical or methodological issues rather than the ontological and philosophical reasoning behind a particular research approach. The use of mixed methods within the present research has led me to question the relevance of singular paradigm choices in social research, and support what Johnson and Onwuegbuzie (2004) refer to as a third paradigm which incorporates mixed methods. During the course of the thesis there was a need for to move between paradigms to align with the reality of the environment and context I was working in. This movement and incorporation of mixed methods helped me to gain an understanding of wider social issues (such as levels of deprivation) and individual behaviours that resonate with the reality of practise.

Chapter Eight:

Conclusion

“Living in the modern world is more like being aboard a careening juggernaut than being in a carefully controlled car.”

(Giddens, 1990. p53)

8.1. Conclusion, personal reflections and future research

In this thesis I have explored the multifaceted, contextual and complex nature of experiences, access, needs and perspectives of physical activity and natural environments (specifically parks). I have concentrated on exploring the experiences of current Liverpool residents (reconnaissance phase) park users (exploratory study), and teenagers involved in a project aimed at increasing the use of parks for physical activity purposes and decreasing antisocial behaviour (social intervention). The findings unravel a complex social issue influenced by personal values, culture and tradition. The following section summarises the main findings in relation to the theoretical and applied perspectives and proposes implications for future academic research and a personal reflection on what I have learnt from the research journey.

8.2. The imperative for multi-disciplinary teams

Findings from the research suggest that parks and urban green spaces have the potential to help promote a “*state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity*” (WHO, 1948, p. 100). However, encouraging different social groups to use spaces for this purpose is a challenging prospect. Cultural norms and dominant leisure activities that discourage use are just two factors that influence the use of parks and open green spaces. There is a need to address multiple inequalities to have any chance of social change and the adoption of healthy behaviours. Multidisciplinary research teams are recommended to fully address the multi-faceted issues confronting urban residents (Lopez & Hynes, 2006). This approach would enable the people with right expertise to work together towards a common goal (i.e. to improve bio-psychosocial health). Human behaviour needs to be considered and understood from an evolutionary, biological, psychological, social, cultural perspective in complex interactions (Hancock & Perkins, 1985). In putting this insight in the context of local surroundings and environment, some advantages might be reached in terms of creating a sustainable and healthy society.

8.3. The researchers' reflection

This proceeding section represents personal learning from the research journey and is presented as a narrative of the writers' voice.

Before I started this research I fully supported the evolutionary theories that stemmed from the Biophilia hypothesis. However, since concluding my research I have come to realise that the theories need to evolve to take account of the changing urban environment and different cultures and ideologies that have emerged since their development. I have identified different and distinct ways in which two distinct populations (i.e. teenagers and adults who already access green spaces) relate and interact with nature. While participants from the exploratory study shared similar beliefs and experiences recorded in previous research, the teenagers from the social intervention did not 'fit' the same model. Thankfully the need to develop theories that take account of population differences is now gaining momentum within the academic sector (see Hartig et al., 2010; Joye & van den Berg, 2011). While the evolutionary theories have been useful in positioning natural environments as important to individual health, now is the time to move forward with new debates and theories that reflect different populations. My findings fully support this debate and contend that while bio-psychosocial benefits can be evoked from natural environments, we need to 'evolve' from the dominant evolutionary theories towards models that relevant to the current era.

Meanwhile, there is still significant evidence to support the bio-psychosocial benefits of physical activity in parks and urban green spaces (e.g., Bodin & Hartig, 2003; Chiesura, 2004; Pretty et al., 2005). It is important that policy makers and practitioners recognise this need as part of a ecological approach to reducing health inequalities. With the current austerity measures put into operation by the Coalition Government, there is a danger that sustained investment in preventative health will not be forthcoming. If further investment is not offered, there is the possibility that the costs associated with treating ill-health as a result of social inequalities could far outweigh the initial outlay for preventative measures (e.g., see Bird, 2006). Policies and monies aimed at utilising the natural (and built) environment to reduce health inequalities should be cross government strategies (i.e., health, environment, transport, education etc.) and multi-disciplinary; not just on paper but also in actions.

At a community level funding should be strategically managed to ensure it enables the best opportunity to address health inequalities and improve bio-psychosocial wellbeing. The social intervention demonstrated that behaviour change interventions need to be

appropriately planned for the target population, based on existing evidence (where available) and provide the opportunity for learning to inform future developments. In particular, the practitioners' role was particularly pivotal in attracting teenagers to the active parks project and managing the intervention. My experiences from working with the practitioners taught me that the strategic intent of a programme (in this instance the bio-psychosocial benefits of physical activity in a park environment) should be fully understood by practitioners to enable intervention aims and objectives to be met. In this instance the practitioner appeared to view the programme as another opportunity to hit youth centre targets as opposed to fully buying into the ethos of potential health benefits and behaviour change. Appropriate skill identification of practitioners and education of the programmes theoretical groundings at the start of the intervention planning may have influenced participant engagement. While the park activity programme did not engage the participants as I would have expected this does not mean that the concept of physical activity in parks as an intervention was necessarily wrong. Instead a different approach may be required for this particular group of teenagers.

Liverpool still has some of the most impressive parks that I have ever seen in England, but this resource is underutilised. This is a resource that has the potential to contribute towards a healthy population now and in the future if properly managed and conserved.

8.4. Future Research into physical activity in parks and urban green spaces

Further investigation into the interrelationships between neighbourhood residents, parks and urban green spaces, activities of users, and potential restorative effects could provide beneficial insights for policy makers and practitioners who would look to use these spaces for bio-psychosocial wellbeing (Frumkin, 2003). Adopting a holistic approach would enable the possibility of identifying and targeting the causes of ill health, as opposed to just commissioning interventions aimed at reducing the symptoms. The target driven culture currently driving health interventions is stifling the investigation into the actual impact of health interventions on individual bio-psychosocial health. Instead more emphasis should be placed on multi-layered evaluations that go beyond socio-demographic data collection.

Furthermore, recognizing the important bio-psychosocial benefits derived from parks and urban green spaces should be a significant motivator for the local and national government to maintain these natural resources. As the subject touches a number of politically sensitive areas (e.g. public health, environmental sustainability and public planning) there are multiple opportunities for policy makers to have an impact on the conservation of urban green spaces.

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Appendices

Appendix One: Liverpool Survey



Liverpool Neighborhood Satisfaction Survey

We would like to find out more information about the way that you perceive or think about your neighborhood, and how active you are within different aspects of your life.

The survey is completed anonymously and takes around 15 minutes to complete.

REMEMBER

- We want to know what **YOU** think
- There are no right or wrong answers
- Everything will be treated as strictly private and confidential

Please complete the survey and return to your project manager or local Liverpool Active City Coordinator

Thank you for your participation within this research

Research Institute for Sport and Exercise Sciences
Liverpool John Moores University

Data Protection

All data collected in this survey will be held anonymously and securely. No personal data is asked for or retained.

Demographic data collected at the end of the survey will only be used for the purposes of this survey and cannot be used to identify any individuals.

2. Access to Services

Shops, facilities, and other things in your neighborhood

1. About how long would it take to get from your home to the nearest businesses or facilities listed below if you walked to them?

	Please put only one check mark for each business or facility					
	1-5 min	6-10 min	11-20 min	21-30 min	31+ min	don't know
a. Small Grocery Shop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Supermarket	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Fruit/Veg market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Community Centre	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Post Office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Library	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Infant/Junior School	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Other School	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Fast Food Restaurant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Coffee Shop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Bank	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Non Fast Food Restaurant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Hospital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Pharmacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Salon/Barber Shop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Bus Stop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Train Station	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Recreation Centre	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. Gym / Lifestyles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
u. Doctors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Access to Services

	Please mark the answer that best applies to you and your neighbourhood. Both local and within walking distance mean within a 10-15 minute walk from your home.			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
a. Shops are within easy walking distance of my home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Parking is difficult in local shopping areas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. There are many places to go within easy walking distance of my home.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. It is easy to walk to a bus stop or train station from my home.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. The streets in my neighbourhood are hilly, making my neighbourhood difficult to walk in.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. There are major barriers to walking in my local area that make it hard to get from place to place (for example, busy roads, railway lines, rivers).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. I have someone to walk with in my neighbourhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. I would prefer to walk with someone in my neighbourhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Streets in my neighbourhood

	Please mark the answer that best applies to you and your neighbourhood.			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
a. The streets in my neighbourhood do not have many cul-de-sacs (dead-end streets).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The distance between major roads in my neighbourhood is usually short (100 yards or less; the length of a football field or less).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. There are many alternative routes for getting from place to place in my neighbourhood. (I don't have to go the same way every time).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Places for walking in your neighbourhood

	Please mark the answer that best applies to you and your neighbourhood.			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
a. There are pavements on most of the streets in my neighbourhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The footpaths in my area are well maintained (even, not cracked or broken)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. There is a park in my local area that is easily accessible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Pavements are separated from the road/traffic in my neighbourhood by parked cars.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. There is a grass/dirt strip that separates the roads from the pavements in my neighbourhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Cars are often parked on the pavements in my neighbourhood, which can obstruct access.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Neighbourhood surroundings

	Please mark the answer that best applies to you and your neighbourhood			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
a. There is lots of greenery around my local area (tree's, bushes, household gardens)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. There are many interesting things to look at while walking in my neighbourhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. There are many attractive natural sights in my neighbourhood (such as landscaping, views).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. There are attractive buildings/homes in my neighbourhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. My local area is generally free from litter, rubbish and/or graffiti.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Neighbourhood safety

	Please circle the answer that best applies to you and your neighbourhood			
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
a. There is so much traffic along nearby roads that it makes it difficult or unpleasant to walk in my neighbourhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The speed of traffic on most nearby roads is usually slow (30 mph or less)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Most drivers exceed the posted speed limits while driving in my neighbourhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Busy streets in my local area have pedestrian crossings and traffic signals to help walkers cross.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. When walking in my local area there are lots of exhaust fumes (such as from cars and buses).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. My neighbourhood streets are well lit at night.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Walkers and bikers on the roads in my neighbourhood can be easily seen by people in their homes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. There is a high crime rate in my neighbourhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. The crime rate in my neighbourhood makes it unsafe to go on walks during the day.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. The crime rate in my neighbourhood makes it unsafe to go on walks at night.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. How often do the following prevent you from getting regular physical activity?

	Please mark one answer for each statement				
	Never	Rarely	Sometimes	Often	Very Often
a. Self conscious about my looks when I exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Lack of interest in exercise or physical activity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Lack of self-discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Lack of time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Lack of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Lack of company	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Lack of enjoyment from exercise or physical activity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Discouragement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Lack of equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Lack of good weather	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Lack of skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Lack of facilities or space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Lack of knowledge on how to exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Lack of good health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Fear of injury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Please tell us the type and amount of physical activity involved in your work. Please mark one box that is closest to your present work from the following five possibilities:

- ☐ I am not in employment (e.g. retired, retired for health reasons, unemployed, full-time carer etc.)
- ☐ I spend most of my time at work sitting (such as in an office)
- ☐ I spend most of my time at work standing or walking. However, my work does not require much intense physical effort (e.g. shop assistant, hairdresser, security guard, childminder, etc.)
- ☐ My work involves definite physical effort including handling of heavy objects and use of tools (e.g. plumber, electrician, carpenter, cleaner, hospital nurse, gardener, postal delivery workers etc.)
- ☐ My work involves vigorous physical activity including handling of very heavy objects (e.g. scaffolder, construction worker, refuse collector, etc.)

9. During the last week, how many hours did you spend on each of the following activities?
Please answer whether you are in employment or not

	Please mark one box only on each row			
	None	Some but less than 1 hour	1 hour but less than 3 hours	3 hours or more
a. Physical exercise such as swimming, jogging, aerobics, football, tennis, gym workout etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Cycling, including cycling to work and during leisure time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Walking, including walking to work, shopping, for pleasure etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Housework/Childcare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Gardening/DIY	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. How would you describe your usual walking pace? Please mark one box only.

- ☐ Slow pace(i.e. less than 3 mph)
- ☐ Steady average pace
- ☐ Brisk pace
- ☐ Fast pace(i.e. over 4mph)

11. In the past week, how many days have you accumulated at least 30 minutes of moderate intensity physical activity such as brisk walking, cycling, sport, exercise and active recreation?

- ☐ One ☐ Two ☐ Three ☐ Four ☐ Five ☐ Six ☐ Seven

12. FULL Postcode (e.g. L3 2ET)

In order to map the layout of your neighbourhood against answers provided we require the full postcode. We will not be able to produce any personal data from this list and as stated earlier all information provided will be kept confidential

13. Age

 years old

14. I am:

- ☐ Male ☐ Female

15. Do you consider yourself to have a disability?

☐ Yes ☐ No **If yes please specify:**

☐ Physical impairment

☐ Sensory impairment

☐ Mental health condition

☐ Learning disability/difficulty

☐ Long-standing illness or health condition

☐ Other _____ (please specify)

16. I consider myself to be:

☐ White: British/Irish/Any other white background

☐ Mixed: White and Black Caribbean/White and Black/White and Asian/Any other mixed background

☐ Asian or Asian British: Indian/Pakistani/Bangladeshi/Any other West or South Asian background

☐ Black or Black British: Caribbean/African/Any other Black background

☐ Chinese: Chinese/Any other East Asian background

☐ Other _____ (please specify)

17. I am:

☐ Employed full time

☐ Employed part time

☐ Student

☐ Unemployed

☐ Retired

☐ Other _____ (please specify)

18. How long have you lived at your current address?

☐ Less than One year ☐ 1-5 Years ☐ 6-10 Years ☐ 11-15 Years ☐ 16 years+

19. How many children under 18 live in your household?

Thank you for your time and effort in completing this survey

Appendix Two: Land-Use Mix Diversity Scores

Land-Use Mix: Services	Participant Walkability Scores	Result Category Percentages (%)				
	Score (Sum/n) Max=5	1 – 5 mins	6 – 10 mins	11 – 20 mins	21 – 30 mins	30+ & Don't Know
Commercial good stores						
Salon/Barbers	3.85	36.6	33.2	17.2	4.7	8.2
Small Grocery Store	4.23	55.6	25.4	11.6	1.7	5.6
Supermarket	3.34	18.1	32.3	25.9	12.9	10.8
Fruit and Veg Market	2.52	11.2	19.4	18.5	12.9	37.9
Fast Food Restaurant	3.52	31.5	25.9	19.4	9.9	13.4
Coffee Shop	3.15	25.0	20.7	20.7	11.2	22.4
Non Fast Food Restaurant	3.19	22.0	25.4	21.1	12.1	19.4
Learning services						
Library	3	15.9	22.4	26.7	15.9	19.0
Infant / Junior School	3.64	29.3	34.9	17.7	6.9	11.2
Other School	2.75	12.1	20.7	24.1	17.7	25.4
Recreation						
Park	3.63	35.8	24.1	20.7	6.5	12.9
Recreation Centre	2.37	6.9	11.2	30.2	15.5	36.2
Gym /Lifestyles	2.62	7.8	18.1	28.0	21.1	25.0
Community Centre	2.63	15.9	19.0	15.9	10.8	38.4
Other public services						
Hospital	1.92	4.3	7.3	15.5	22.0	50.9
Doctors	3.60	28.0	31.5	23.7	6.5	10.3
Bus Stop	4.68	75.4	19.4	3.9	0.4	0.9
Train Stop	2.75	13.4	15.5	29.7	15.5	25.9
Pharmacy	3.82	34.1	32.8	20.7	6.9	5.6
Post Office	3.45	24.6	26.7	28.9	9.5	10.3
Bank	3.01	16.8	22.0	24.6	19.4	17.2

Higher Scores = Higher Walkability

Appendix Three: Land-Use Mix Access

Land-Use Mix Access	Participant Walkability Scores	Result Category Percentages (%)			
	Score (Sum/n) Max=4	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Shops are within easy walking distance	2.89	6.5	11.2	69.4	12.9
Parking is difficult in local shopping areas**	1.59	19.0	27.2	47.4	6.5
There are many places to go within easy walking distance of my home	2.75	7.3	18.5	65.9	8.2
It is easy to walk to a bus or train station from my home	2.97	4.3	7.3	75.9	12.5
The streets in my neighbourhood are hilly making my neighbourhood difficult to walk in**	2.41	60.3	22.0	15.9	1.7
There are major barriers to walking in my local area that make it hard to get from place to place**	1.73	44.0	29.3	23.7	2.6
I have someone to walk with in my neighbourhood.	2.38	18.5	28.4	49.6	3.4
I would prefer to walk with someone in my neighbourhood.	2.29	21.1	30.6	46.1	2.2

****Alternative Reverse Scoring**

	Participant Walkability Scores	Result Category Percentages (%)			
	Score (Sum/n) Max=4	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Higher Scores = Higher Walkability					
The streets in my neighbourhood do not have many cul-de-sacs (dead-end streets).	2.66	18.1	27.2	25.0	29.7
The distance between major roads in my neighbourhood is usually short (100 yards or less; the length of a football field or less).	3.21	11.2	26.7	33.2	28.4
There are many alternative routes for getting from place to place in my neighbourhood. (I don't have to go the same way every time).	2.91	9.5	19.0	43.1	28.4

	Participant Walkability Scores	Result Category Percentages (%)			
	Score (Sum/n) Max=4	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Higher Scores = Higher Walkability					
There are pavements on most streets in my neighbourhood	3.71	0.4	3.4	19.4	76.3
Footpaths in my area are well maintained	2.45	19.8	28.9	35.8	15.1
There is a park in my local area that is easily accessible	3.27	9.1	8.2	27.6	54.7
Pavements are separated from the road/traffic in my neighbourhood by parked cars	2.90	8.2	20.3	43.1	28.0
There is a grass/dirt strip that separates the roads from pavements in my neighbourhood	2.07	38.8	26.7	21.1	12.9
Cars are often parked on the pavements in my neighbourhood, which can obstruct access**	1.09	12.1	20.3	31.0	36.2

****Alternative Reverse Scoring**

	Participant Walkability Scores	Result Category Percentages (%)			
	Score (Sum/n) Max=4	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Neighbourhood Safety (High Score = High Walkability)					
There is lots of greenery around my local area	2.92	13.8	15.9	32.8	37.1
There are many interesting things to look at while walking in my neighborhood	2.69	15.1	23.3	37.5	23.7
There are many attractive natural sights in my neighborhood	2.47	22.4	26.3	31.5	19.4
There are attractive buildings/homes in my neighborhood	2.71	13.4	22.8	39.7	23.3
My local area is generally free from litter, rubbish and/or graffiti	2.35	23.7	30.2	31.5	14.2

Appendix Seven: Neighborhood Safety

	Participant Walkability Scores	Result Category Percentages (%)			
	Score (Sum/n) Max=4	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Neighbourhood Safety (High Score = High Walkability)					
There is so much traffic along <u>nearby</u> roads that it makes it difficult or unpleasant to walk in my neighborhood.	2.46	12.1	41.8	34.5	11.6
The speed of traffic on most <u>nearby</u> roads is usually slow (30 mph or less	2.36	21.1	29.3	41.8	7.8
Most drivers exceed the posted speed limits while driving in my neighborhood.	2.86	4.7	28.0	44.0	23.3
Busy Streets in my local area have pedestrian crossings and traffic signals to help walkers cross.	2.89	6.5	18.5	54.3	20.7
When walking in my local area there are lots of exhaust fumes	2.82	3.9	30.2	45.7	20.3
My neighborhood streets are well lit at night	2.76	7.3	22.4	56.9	13.4
Walkers and bikers on the roads in my neighborhood can be easily seen by people in their homes	2.62	8.2	32.8	47.4	11.6
Crime (Higher Score = Higher Walkability)					
There is a high crime rate in my neighborhood**	1.71	19.8	41.4	28.4	10.3
The crime rate in my neighborhood makes it unsafe to go on walks <u>during the day</u> **	2.28	44.4	42.7	9.1	3.9
The crime rate in my neighborhood makes it unsafe to go on walks <u>at night</u> .**	1.76	26.3	34.5	28.4	10.8

****Alternative Reverse Scoring**

Perceptions of each environment depicted in the scene videos
<p>Can you give a description of the scene you have just walked to?</p> <p>What would you say is the purpose of this place?</p> <p>If you were able to is there any way you would change this environment?</p>
Feelings evoked during these experiences
<p>How do you feel walking/being within each environment?</p> <p>What does this time interaction mean to you?</p> <p>What would you do if you could not access spaces like this?</p>
Experiences of being in each environment
<p>When do you tend to be in this environment?</p> <p>Have you any personal experiences of accessing these spaces recently? And in the past (life cycle)?</p> <p>What types of activities would you do in these environments?</p>
Access and affiliation
<p>When do you tend to access this environment?</p> <p>If you had no other commitments (i.e. work) how often would you choose to access these areas?</p> <p>How does access to these places support your life?</p> <p>Are there any barriers that limit your access?</p> <p>What do you personally gain from walking in these environments?</p>
Green spaces
<p>If you were to convince someone who does not access green spaces of the benefits you experience, how would you do this?</p> <p>What can these places do for other people?</p>

Appendix nine: Youth Centre Parks Programme of Activities

Activity	Date(s)	Venue
Introduction to the study: Denise will visit Youth Centre to outline the project and answer any questions people have	22/06/09	Youth Centre
Intervention planning and handing out of activity monitors.	29/06/09	Youth Centre
Intervention planning and general discussion (Q&A)	02/07/09	Youth Centre
Laboratory testing and collection of activity monitors	06/07/09 – 17/07/09	Henry Cotton Campus, LJMU
Programme of park based activities (Activities to be determined by children in cooperation with Youth workers)	27/07/09 – 31/08/09	Parks Across Liverpool
4 day residential (Funding dependent)	TBC	(Details TBC by Youth Workers)
Focus groups and handing out of activity monitors.	Sep 09	Youth Centre
Laboratory testing and collection of activity monitors	Sep 09	Henry Cotton Campus, LJMU

Physical activity
<p>When you hear about getting involved in physical activity what do you think?</p> <p>What sort of activities do you currently participate in? Or have previously participated in?</p>
Parks and natural spaces
<p>What do you think of when I mention parks and natural environments?</p> <p>Are there any particular places you can relate to this?</p> <p>What are your most memorable experiences of accessing natural environments?</p> <p>What do you think are the main purposes of parks and natural spaces?</p>
Experiences of being in parks and natural spaces
<p>When do you tend to be in this environment?</p> <p>Have you any personal experiences of accessing these spaces recently? And in the past when you were younger?</p> <p>What types of activities would you do within these environments?</p> <p>What would you do if you couldn't access parks?</p>
Project feedback
<p>How have you found the project?</p> <p>What sessions have you been involved in?</p> <p>What feelings were evoked during these experiences?</p> <p>What did you get out of the sessions?</p> <p>(In select cases) were there any particular barriers that prevented you from partaking in all of the planned sessions?</p> <p>If you had to design a similar scheme next year to increase participation and park use by people your age what would you do?</p>